RE: 2020 DUCK HUNTING SEASON ARRANGEMENTS

Core message

Under the *Game Management Authority Act 2014* (the Act), the Game Management Authority (GMA) may make recommendations to relevant Ministers in relation to open and closed seasons and bag limits for game hunting. Under the Act, the GMA also must have regard to the principle of triple bottom-line assessments, which means an assessment of all the economic, social and environmental costs and benefits, taking into account externalities.

Although conditions for game ducks across eastern Australia have declined since last year, there has been a small increase in game duck abundance. In light of the decline in environmental conditions, the GMA Board believes it is necessary to significantly modify the 2020 duck season. This is to ensure that it remains sustainable and allows the populations to recover when environmental conditions improve. A significantly modified season will provide some economic benefit to regional areas and social benefits for hunters.

The GMA Board recommends that the modified 2020 duck season is as follows:

- the daily bag limit should be reduced to three (3) birds;
- the season should be reduced to approximately five (5) weeks (38 days), commencing Saturday 2 May and ending on Monday 8 June 2020;
- the Blue-winged Shoveler should be prohibited from hunting given the uncertainty over the species' status;
- consistent with our previous advice, the GMA believes that the opening weekend start times should be delayed until 8:00am on both days.

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Due	As soon as possible
Explanation	To allow industry, the hunting community and government agencies to make arrangements.

Recommendation

That you:

1. approve the GMA recommendation to modify the 2020 duck season by reducing the daily bag limit to three birds, reducing the season length to 38 days, commencing on 2 May and closing on 8 June 2020, prohibiting the Blue-winged Shoveler from being hunted for 2020 and delay opening weekend start times to 8:00am on both days.
2. note that if this recommendation is accepted, GMA will inform the community on the changes and conduct compliance operations together with its partner agencies.

Recommendation 1 ☐ Approved ☐ Not approved ☐ Noted ☐ Returned for review

Recommendation 2 ☐ Approved ☐ Not approved ☐ Noted ☐ Returned for review

Minister's Comments

Signed **Jaclyn Symes MP** **Date**
Minister for Agriculture

Approved by  **Date** 24 December 2019

Brian Hine, Chair Game Management Authority ☎ 33(1)

Endorsed by: Graeme Ford, CEO Game Management Authority ☎ 33(1)

Prepared by: Simon Toop, Director Strategy and Research, Game Management Authority 33(1)

From	GAME MANAGEMENT AUTHORITY	**Ref**	
Title	2020 DUCK HUNTING SEASON ARRANGEMENTS	**File**	
		Due	

1. Key Information

Sustainable duck hunting in Victoria

To ensure that duck hunting remains sustainable, a number of environmental and game duck population variables are monitored and reviewed annually. These include the abundance and distribution of game ducks, the distribution and extent of waterfowl habitat and the current and forecast climatic conditions affecting waterfowl populations. All of eastern Australia, and not just Victoria, is taken into account in recognition of the highly mobile nature of game ducks and their ability to move large distances in short periods of time.

Summary of conditions

The document *Considerations for the 2020 Duck Season as at 6 December 2019* (see **Attachment 1**) provides detailed information relating to the status of game duck populations and their habitats across eastern Australia.

Habitat availability

Since 2017, much of eastern Australia has received below average rainfall. For all of Australia, it was the second driest January-November period on record. Almost all of New South Wales (99.7%) and the majority of Queensland (66%) is currently drought affected. Eastern South Australia, northern Victoria and Gippsland have also received below average rainfall.

The Eyre Basin experienced a significant flood event in early-2019, creating extensive short-term habitat. A single breeding event was triggered. This habitat has now largely dried.

The Eastern Australian Waterbird Survey (EAWS) wetland area index is 69% below the long-term average. All other indicators of water in the landscape are reduced – low stream flows, low water storages, low soil moisture and low run-off.

Distribution of habitat

Waterbird habitat is largely located in central Queensland, southern New South Wales/northern Victoria, south-western Victoria and south-eastern South Australia. There is very little habitat available in the Murray-Darling Basin and habitat created in the Eyre Basin as a result of flooding in Queensland earlier this year has largely dried.

Game duck abundance and distribution

Game duck abundance increased (8%) from last year but is 43% below the long-term average. Birds are concentrated in north/central Queensland, southern New South Wales/northern Victoria, south-western Victoria and south-eastern South Australia. They are less dispersed than last year and concentrated on remaining habitat.

Climate outlook

A positive Indian Ocean Dipole, negative Southern Annular Mode and delay to the onset of the monsoon are contributing to the prediction for a hotter and drier summer for eastern Australia.

Long-term trends

Waterbird abundance, breeding and habitat availability are all showing long-term declines.

Duck hunting arrangements in adjacent states

South Australia

South Australia announced a restricted 2020 duck season. The daily bag limit has been reduced from 12 birds per day to four (4) and the season will run for approximately nine (9) weeks, down from the usual 16.

New South Wales

New South Wales banned recreational duck hunting in 1995. However, it does conduct a damage mitigation program to protect rice and other crops. Given the lower abundance of game ducks and reduced amount of water in the landscape, the New South Wales government has adopted a low risk, conservative quota for the 2019-20 waterfowl damage mitigation program. The quota has been set at 39,732 birds, a decrease of 67% from the 2015-16 figure of 119,990.

Tasmania

The Department of Primary Industries, Parks, Water and Environment has advised that a normal duck season will proceed in Tasmania in 2020. The duck hunting season will commence on 7 March 2020 and close on 8 June 2020. The daily bag limit is 10 birds.

Recent amendments to the Game Management Authority Act

As a consequence of amendments to the GMA Act in the Primary Industries Legislation Amendment Bill 2019, a new section, "Guiding principles" was inserted and came into effect on 17 December 2019. The new section requires the GMA to have regard to the following relevant principles when exercising its powers or performing its functions under the GMA Act:

- the principle of triple bottom-line assessment, which means an assessment of all the economic, social and environmental costs and benefits, taking into account externalities;
- the principle of an evidence-based approach, which means considering the best available information when making decisions.

Game Management Authority recommendation

In light of the reduced environmental conditions and low game duck population abundance, the GMA Board believes there is a clear need to modify the prescribed seasonal arrangements to:

- reduce the impact of duck hunting to ensure that it remains sustainable and
- allow populations to recover when environmental conditions improve.

Daily bag limit

The GMA recommends that the daily bag limit should be reduced from 10 birds per day to three (3). The Blue-winged Shoveler should be prohibited from hunting for 2020 due to uncertainty around the species' conservation status.

Season length and start times

The season length should be reduced from 12 weeks to approximately five (5), commencing on Saturday 2 May and ending on Monday 8 June 2020. This date avoids Easter and Anzac Day.

As per its earlier advice on the trial of later start times over the opening weekend, the GMA believes that the opening weekend start times should be delayed until 8:00am on both days.

GMA believes that these restrictions will reduce the average seasonal harvest by approximately 74%.

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Social and economic impact

An economic review conducted into the 2013 hunting seasons found that duck hunting generated approximately $106.3 million in economic activity annually. Assuming 2% annual growth, this figure would

translate to $119.7 million in today's terms. If the GMA's recommendation for a modified season is accepted, there will likely be a reduction in hunting activity which will result in reduced economic activity. However, past experience shows that when seasons were reduced, the reduction in hunter activity was relatively modest (approximately 20%). Poorer environmental conditions could also contribute to a reduction in participation. Even so, hunters will still take to the field and those regional areas with habitat to support duck hunting will see some benefit.

Adaptive Harvest Management

Implementation of the Waterfowl Conservation Harvest Model, a key action under the government's *Sustainable Hunting Action Plan*, will provide a robust, evidence-based and defendable approach to setting game duck harvest arrangements while gathering vital information on game duck population dynamics.

As part of its election commitment, the government agreed to finalise the model's development by 2020. Both hunting, conservation and animal welfare stakeholders support the implementation of this model. It is also strongly supported by GMA.

2. Context

Duck hunting in Victoria

Duck hunting is permitted under the *Wildlife Act 1975*. The season length, species composition, bag limits and hunting methods are prescribed under the Wildlife (Game) Regulations 2012. Under these regulations, a duck hunting season occurs annually, commencing on the third Saturday in March and concluding on the second Monday in June. Eight duck species may be hunted, and the daily bag limit is set at ten game ducks per day, which includes a maximum of two Blue-winged Shoveler.

Duck hunting is a popular recreation in Victoria with approximately 25,000 licensed hunters who harvest 370,000 game ducks, on average.

Modifying a duck hunting season

Under section 86 of the *Wildlife Act 1975*, the Minister, by notice in the Government Gazette, may further regulate the duck hunting season where there is a need to alter the prescribed seasonal arrangements.

Under the Administration of Acts General Order dated 29 November 2018, section 86 of the *Wildlife Act 1975* is jointly administered by you, as Minister for Agriculture, and the Minister for Energy, Environment and Climate Change. Any modification to the prescribed duck hunting season must be agreed to by both Ministers.

3. Consultation

On 6 December 2019, the GMA provided information to stakeholders on current and predicted environmental conditions, waterbird habitat extent and distribution and waterfowl distribution and abundance indices throughout eastern Australia. This information was also placed on the GMA website. The GMA also provided the draft summary report findings of the 2019 Eastern Australian Waterbird Survey (see Attachment 2).

The following stakeholders were invited to provide a written submission and present to the GMA, Department of Environment, Land, Water and Planning (DELWP) and Department of Jobs, Precincts and Regions (DJPR) at a meeting on 13 December 2019:

- Field and Game Australia
- Sporting Shooters' Association of Australia (Vic)
- BirdLife Australia (Vic)
- RSPCA
- Animals Australia

The following stakeholders were invited to provide a written submission only by close of business 13 December 2019:

- Shooting Sports Council of Victoria
- Coalition Against Duck Shooting
- Regional Victorians Opposed to Duck Shooting

DELWP and DEDJTR were briefed on the information at a meeting on 11 December 2019.

A summary of stakeholder recommendations is provided in the table below. Stakeholders made thoughtful submissions, however, little new data was provided.

Organisation	Recommendation
Field and Game Australia* (FGA)	Modified season. Season reduced by 2 weeks, starting 4 April. Reduced daily bag limit of 6 birds (down from 10) and later start times on opening weekend 8:00am and Saturday and 7:00am on Sunday (daylight savings ended that day)
Sporting Shooters' Association Australia (Vic)* (SSAA)	Modified season. Season reduced by 2 weeks, starting 4 April. Reduced daily bag limit of 6 birds (down from 10) and later start times on opening weekend 8:00am and Saturday and 7:00am on Sunday (daylight savings ended that day)
Shooting Sports Council of Victoria	Modified season. Season reduced by 4 weeks, starting 18 April. Reduced daily bag limit – 4 birds on opening weekend and 5 birds for the rest of the season. Additional Wood Duck per day, but no specified number.
BirdLife Australia (Vic)	Cancel the 2020 duck hunting season
RSPCA	Cancel the 2020 duck hunting season
Animals Australia	Cancel the 2020 duck hunting season
Coalition Against Duck Shooting	Cancel the 2020 duck hunting season
Regional Victorians Opposed to Duck Shooting	Cancel the 2020 duck hunting season

* Note: FGA and SSAA made a joint submission.

A summary of issues raised by the stakeholders is included in **Attachment 3**. All invited submissions from the above groups are included at **Attachment 4**.

GMA also received a number of unsolicited submissions. These are included at **Attachment 5**.

4. Attachments

Attachment 1 – Considerations for the 2019 duck season current as at 6 December 2020.

Attachment 2 - Summary report of findings of the 2019 Eastern Australian Waterbird Survey.

Attachment 3 - Summary of stakeholder views on the arrangements for the 2020 duck season.

Attachment 4 – Invited stakeholder submissions.

Attachment 5 – Unsolicited stakeholder submissions.

Considerations for the 2020 duck season

Current as at 6 December 2019

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Duck hunting in Victoria

- There are approx. 25,000 hunters licensed to hunt duck in Victoria.
- Duck hunting is regulated to ensure it remains safe, sustainable, humane and equitable.
- The Victorian duck season is prescribed under the Wildlife (Game) Regulations 2012 to occur every year between the third Saturday in March and the second Monday in June. Daily bag limits and hunting methods are also prescribed.

- A number of factors are reviewed each year to ensure duck hunting remains sustainable, including current and predicted environmental conditions, game duck abundance, distribution and productivity and habitat extent and distribution.
- The Minister for Agriculture and Minister for Environment may modify (increase/decrease bag limits and season dates, further regulate time, place and methods) the prescribed arrangements under section 86 of the *Wildlife Act 1975.*

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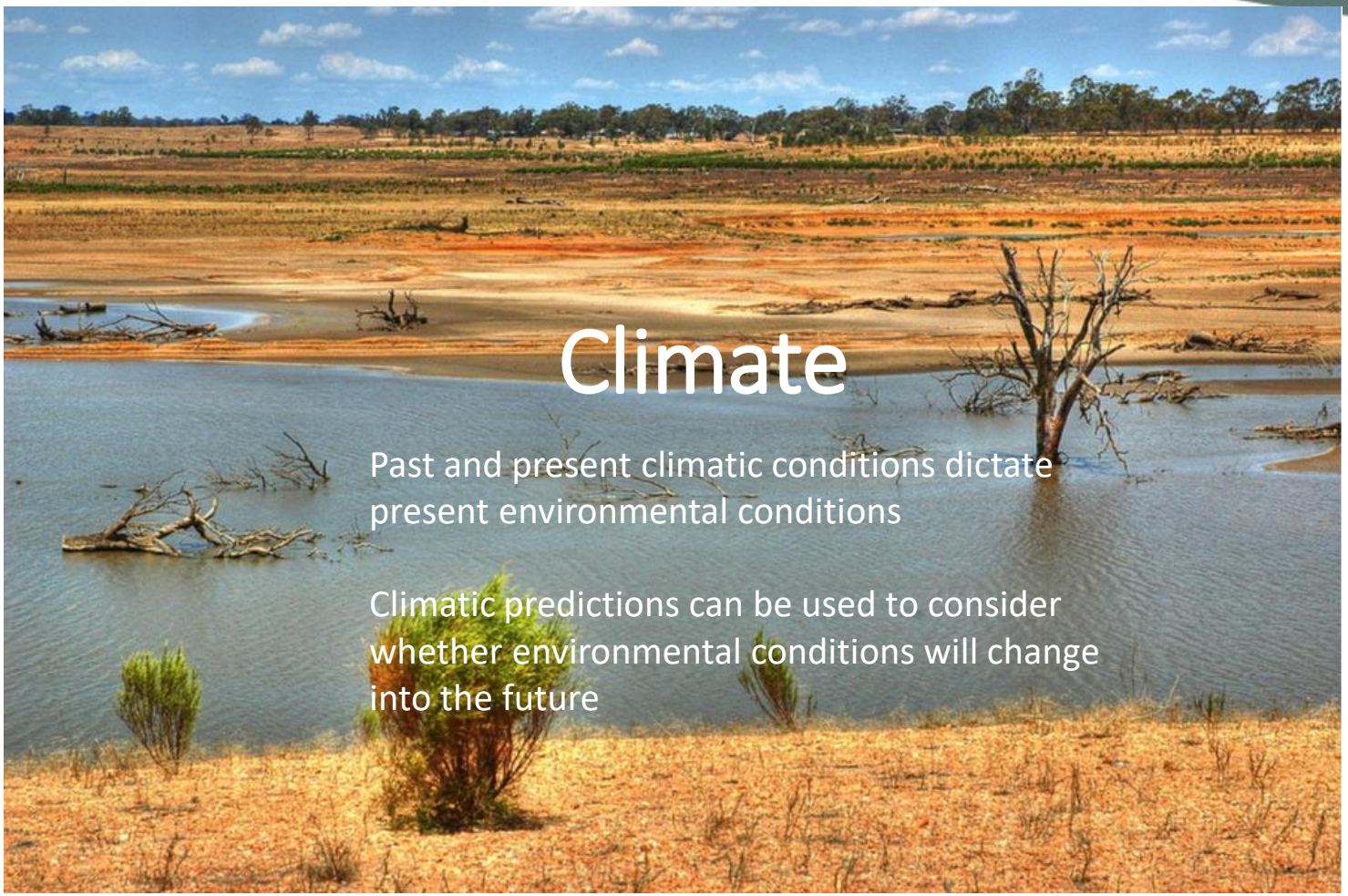

Climate

Past and present climatic conditions dictate present environmental conditions

Climatic predictions can be used to consider whether environmental conditions will change into the future

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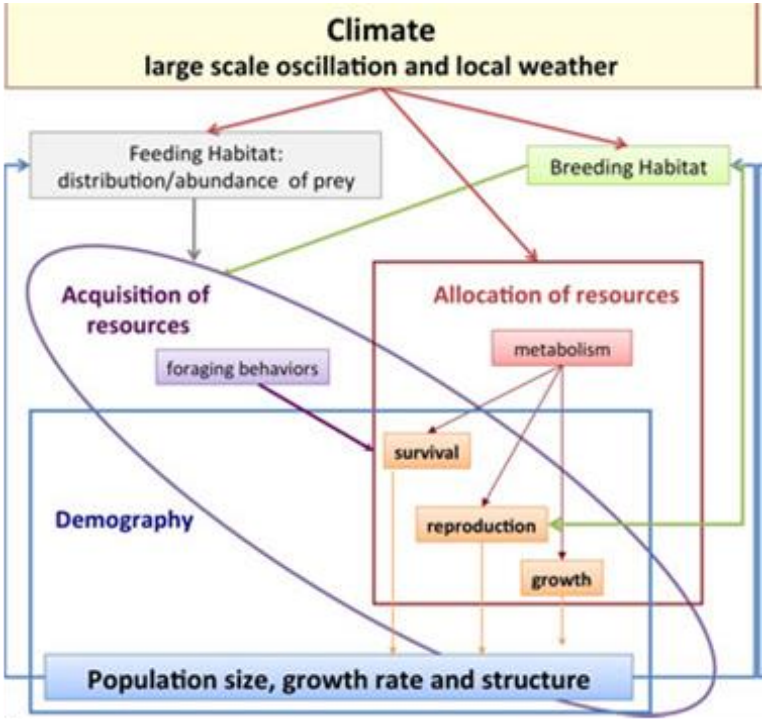
Climatic conditions and waterfowl

- Climatic conditions, such as large scale oscillations (e.g. Southern Oscillation Index) and local weather (e.g. rainfall and temperature), can effect the distribution, productivity and size of waterfowl populations.

- In Australia, waterbird abundance is strongly related to river flows and rainfall.

- Large and extensive rainfall events can contribute to population increase as the conditions are enhanced to support breeding and recruitment. Conversely, during dry periods, breeding may be modified or greatly reduced (see Kingsford and Norman 2002).



Climate effect on waterbird populations. Source: Jenouvrier 2013

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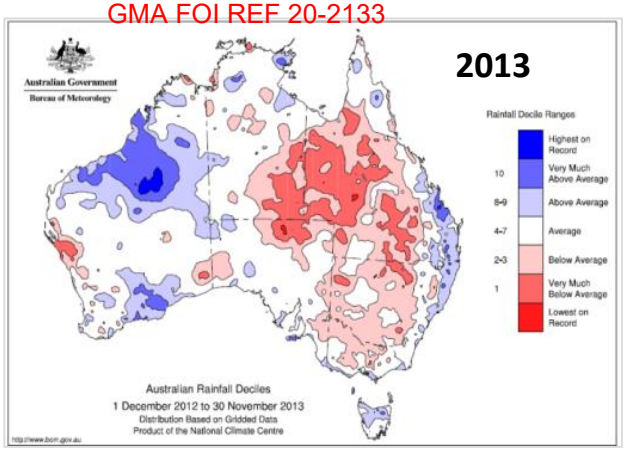
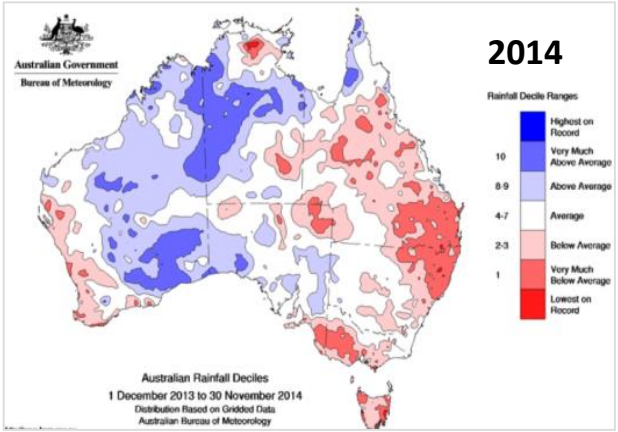
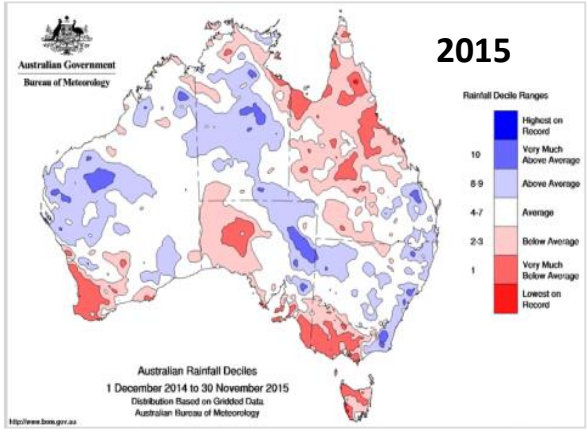
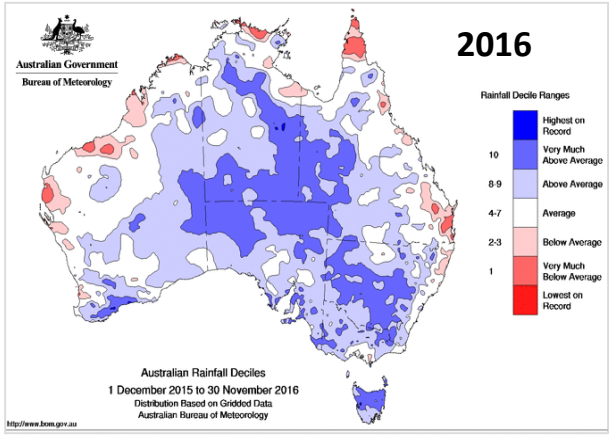
Annual rainfall deciles 2013 to 2019

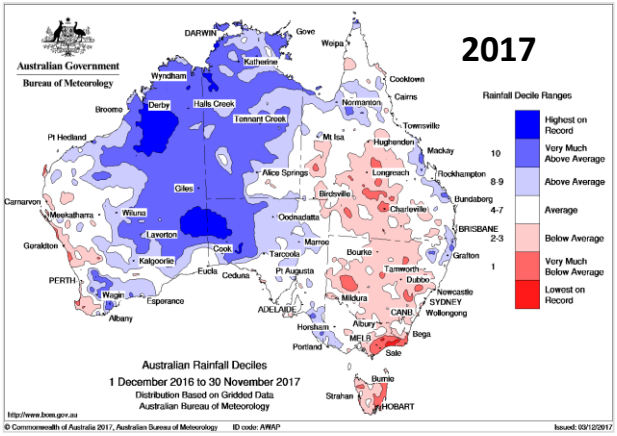
(Deciles = rainfall received compared to historical averages)

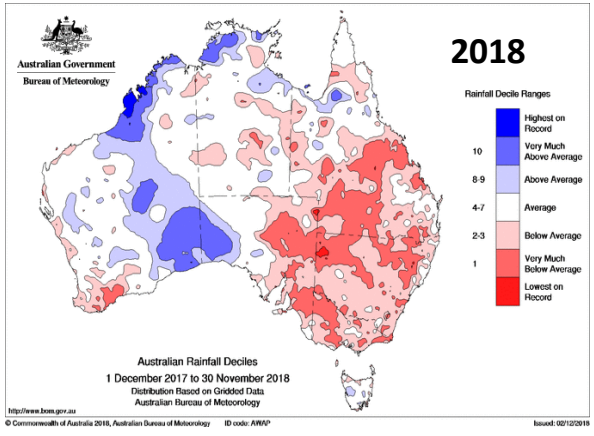


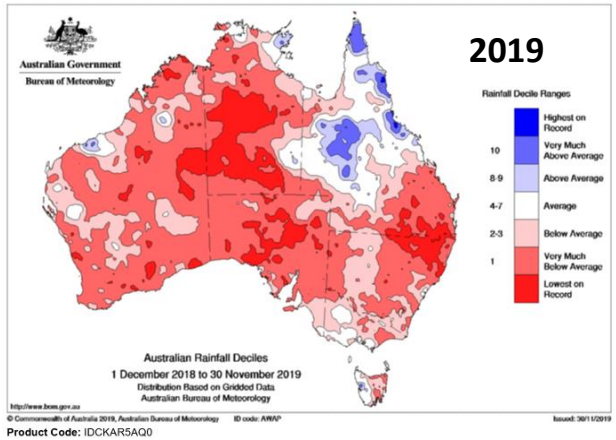












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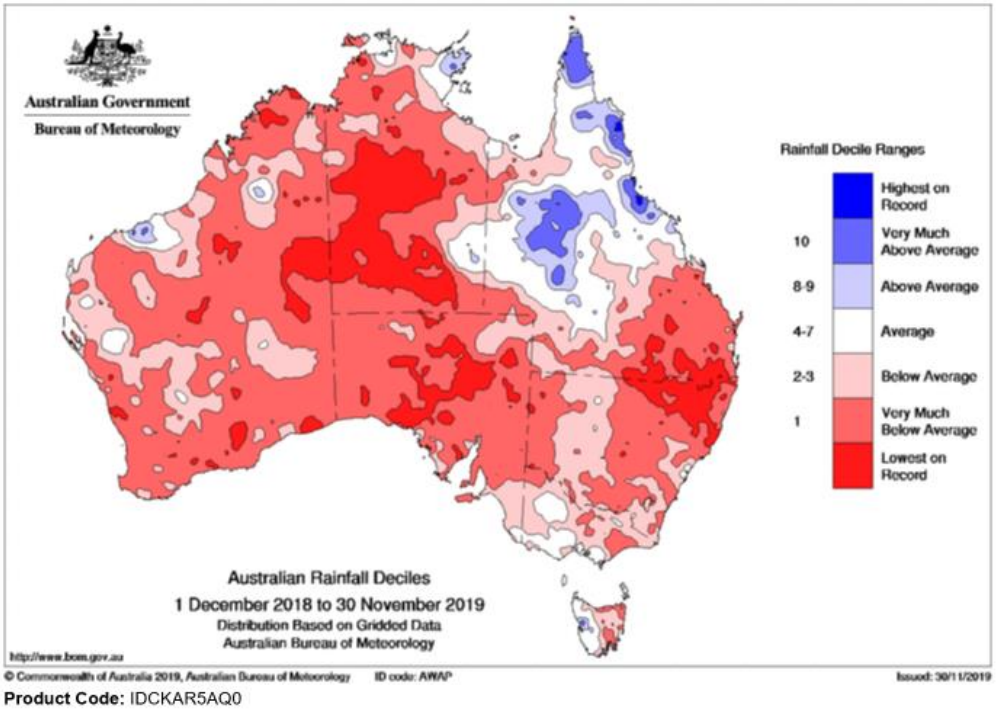
Source: www.bom.gov.au

Year-to-date rainfall 2019

- Most of Australia has experienced below to very much below average rainfall in 2019.
- For Australia, it was the second driest January - November period on record and amongst the three driest for NSW, SA, WA and the NT. Victoria has also experienced below to very much below average rainfall for most of the state.
- From January to October 2019, 55.8% of Australia was classified as being in serious or severe rainfall deficiency. 88.3% of Australia has had rainfall totals below the median.
- Areas of SA, NT, NSW and QLD have experienced the lowest rainfall on record.
- Almost all of NSW is drought affected (42%) or in drought (57.7%) (DPI 2019).
- More than 66% of QLD is drought affected or in drought (QLD DAF 2019).



- About half of QLD (from summer monsoon & ex-tropical cyclone Trevor) and small areas of WA, NT and Victoria have experienced average or above average or greater rainfall in 2019.

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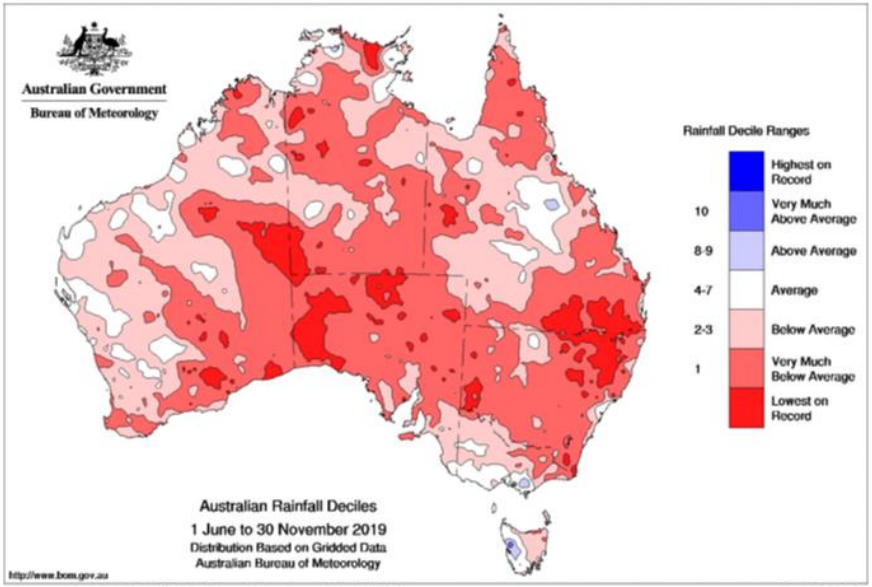
Current rainfall deciles

Winter-spring 2019



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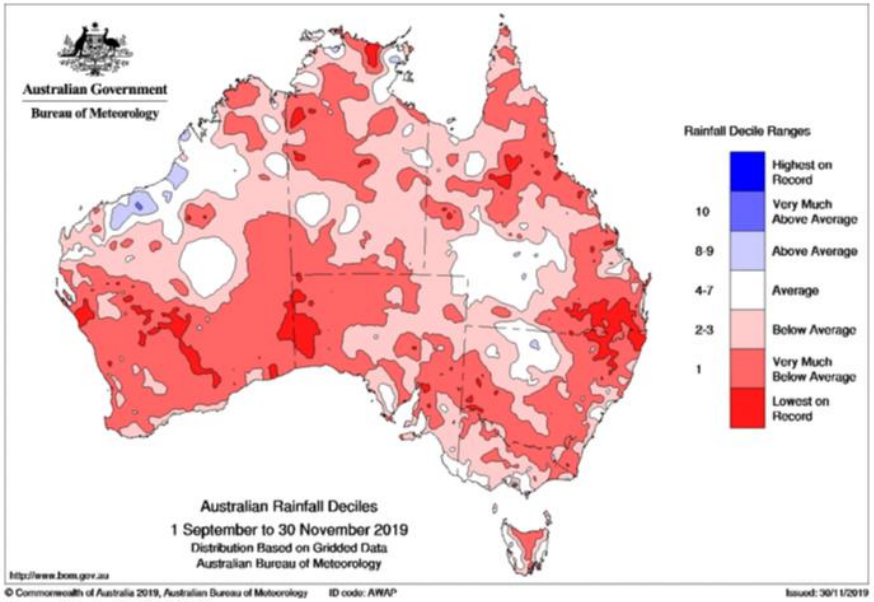
Spring 2019



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- Rainfall for winter - spring was “below” to “very much below” average for almost all of Australia.
- During spring, there was some improvement in parts of southern/central QLD and northern NSW, but overall, it was the driest spring on record.
- Rainfall for spring was amongst the lowest 10% of historical records for much of NSW, eastern QLD, nearly all of southern half of WA, large parts of the NT, large parts of SA and parts of Victoria and northern Tasmania

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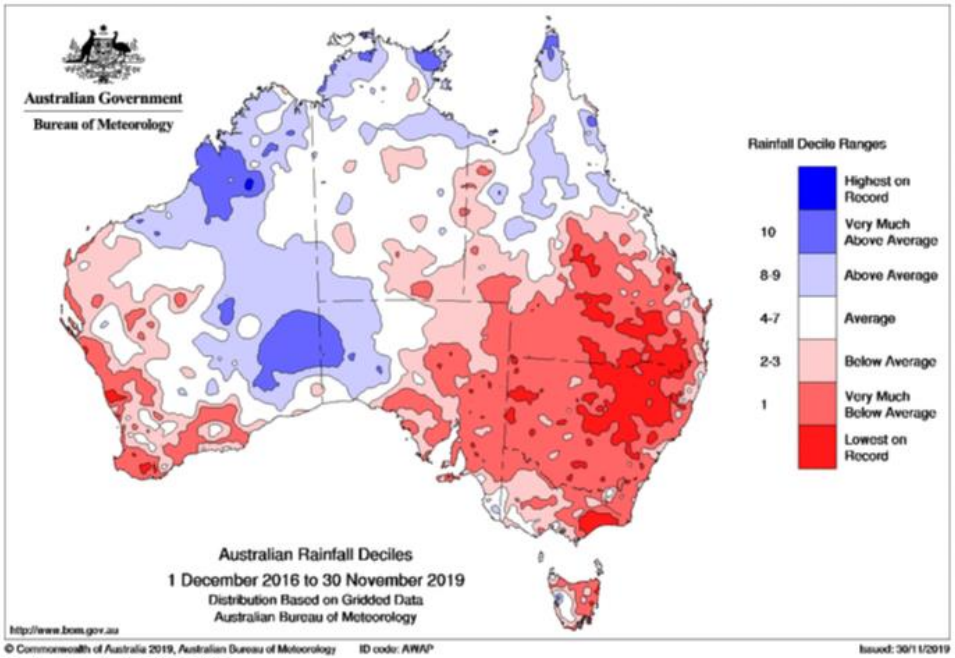
Source: www.bom.gov.au

Three-year rainfall

- The past three years have seen dry conditions over eastern Australia.
- Rainfall for the 34 months from January 2017 to October 2019 has been the lowest on record for the Murray-Darling Basin (MDB) and New South Wales.
- Rainfall for the northern Basin was the lowest recorded by a substantial margin, breaking records set in the Federation Drought in 1900-1902.
- In Victoria, West Gippsland and East Gippsland each had their driest 34 months on record to October 2019.
- Storage volumes in the northern MDB continue to decline, reaching a combined volume in mid-November of 6.7%, which is lower than the lowest point during the Millennium Drought.



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Source: *Special Climate Statement 70 Update – drought conditions in Australia and impact on water resources in the Murray Darling Basin. BOM 29 Nov 2019*

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Climate predictions – future conditions

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Southern Oscillation Index

The Southern Oscillation Index (SOI) is a proxy used for determining the El Niño Southern Ocean Index (ENSO).

SOI is a key atmospheric index for determining environmental conditions affecting Australia.

SOI can determine two events:

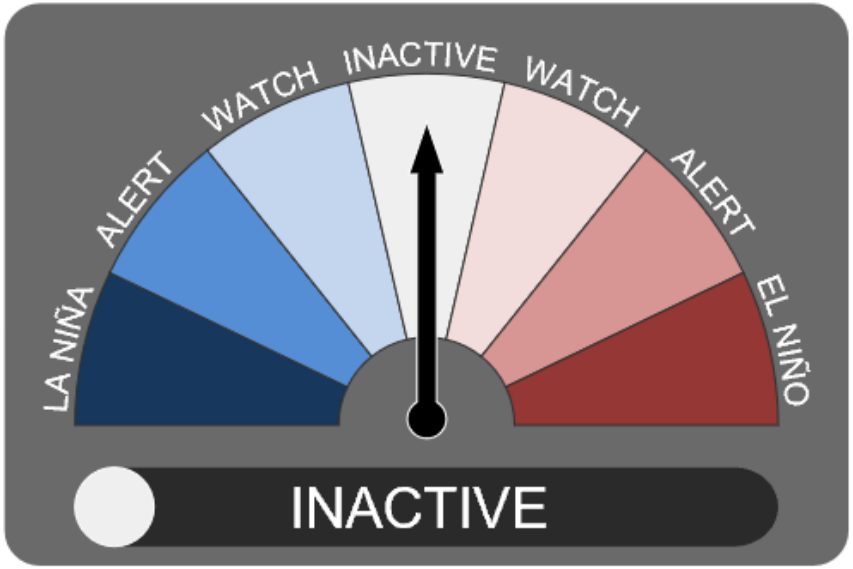
1. La Niña
   - Sustained negative values > 8
   - Above average rainfall
   - Temperatures are below normal
   - Flooding tends to occur
2. El Niño
   - Sustained positive values < 8
   - Drought tends to occur
   - Increased heatwaves
   - High fire risk

Readings between +7 and -7 are considered neutral (or stable).

Source: www.bom.gov.au

Current conditions

- The ENSO outlook is currently INACTIVE. This means there is little sign of El Niño or La Niña developing in the coming months.
- The 30-day Southern Oscillation Index (SOI) for November was -10.5 (90-day SOI value -9.7).



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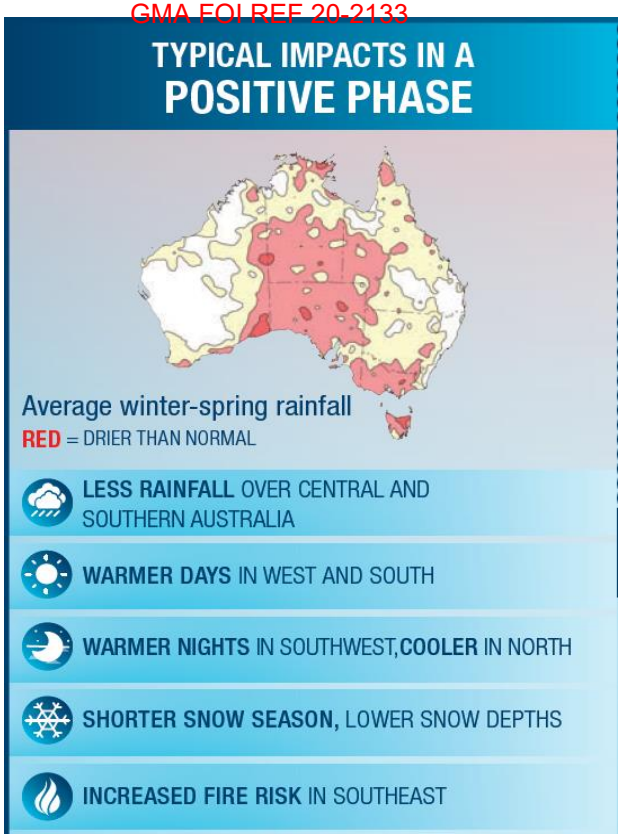

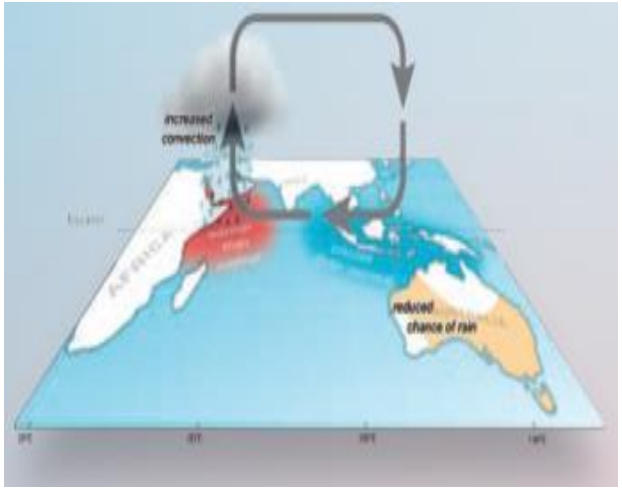

Indian Ocean Dipole

- The Indian Ocean Dipole (IOD) is the difference in ocean temperatures between the west and east tropical Indian Ocean, that can shift moisture towards or away from Australia. It is recognised as being one of the key drivers of climate in Australia.

Current situation

- Typically, a positive IOD brings below average spring rainfall to southern and central Australia with warmer days for the southern two-thirds of the country.

- A strong positive Indian Ocean Dipole (IOD) is currently in place and the main influence on the Australian climate. Significantly warmer than average waters remain near the Horn of Africa, and cooler than average waters persist in the eastern Indian Ocean, south of Indonesia.

- International climate models indicate the positive IOD is so strong that it is likely to be slow to decline and could persist into mid-summer.

Source: www.bom.gov.au

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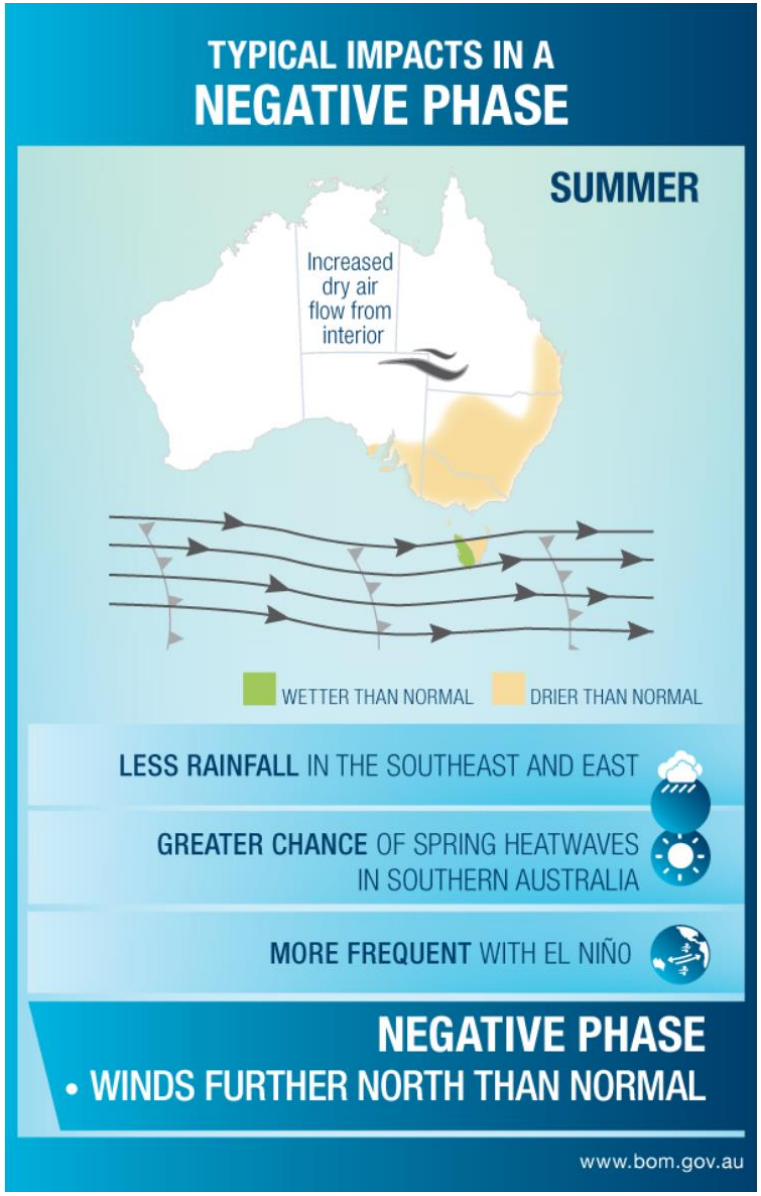
Southern Annual Mode (SAM)



- A negative SAM in summer can cause drier than normal conditions over southeast SA, Victoria, most of NSW and the southeast coast of QLD.
- In a negative SAM phase, the belt of westerly winds expands towards the equator and Australia. Shifting the westerly winds to the north in summer means less moist onshore flow from the east and typically decreases rainfall over eastern Australia.
- Australia is currently experiencing a negative SAM which is likely to remain until late-summer, causing drier than normal conditions.
- ***Source: www.bom.gov.au***

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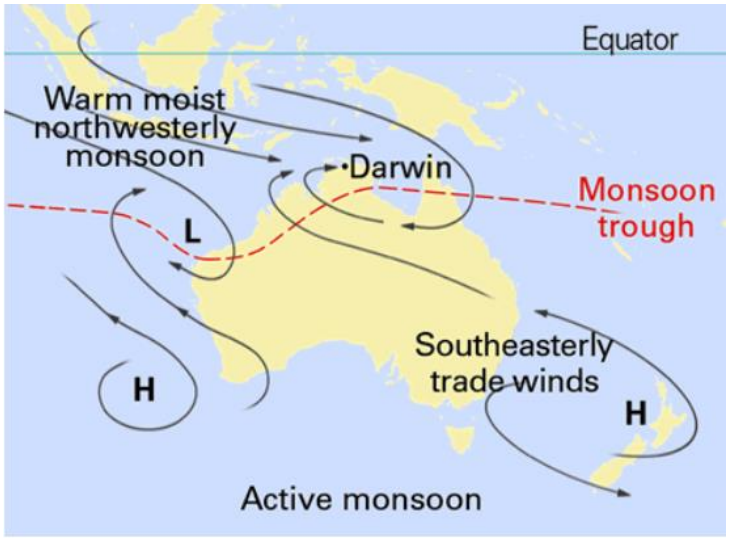
The Australian Monsoon



- "Monsoon" describes the seasonal reversal of winds that occurs over parts of the tropics. The monsoon is associated with cloudy conditions, lengthy periods of heavy rain, occasional thunderstorms and fresh to strong squally winds. This often causes flooding in affected areas.

Current situation

- The monsoon trough is yet to reach the southern hemisphere after a record late retreat from India. This increases a delay to the start of the wet season for tropical Australia.
- The delayed onset of the monsoon will delay any improvement to northern wetlands.

Source: www.bom.gov.au

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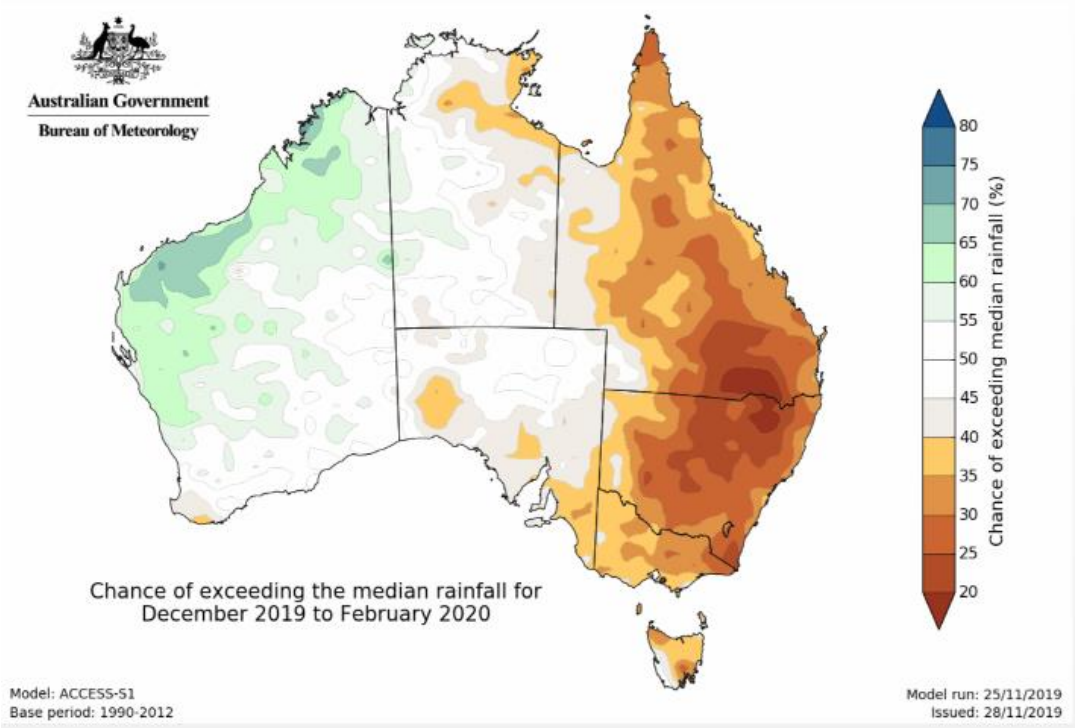
Summer rainfall prediction (Dec -Feb)

The summer rainfall prediction can be used to indicate the potential impact on habitat for the up coming season.



Summer 2019/20 prediction

- December to February is likely to be drier than average for most of eastern Australia.
- Parts of WA are predicted to receive above average rainfall.
- For the rest of Australia (central), there are roughly equal chances of a wetter or drier three months, i.e. no strong tendency towards a wetter or drier than average season ahead.
- Next update will be on 20 December 2019

Source: www.bom.gov.au

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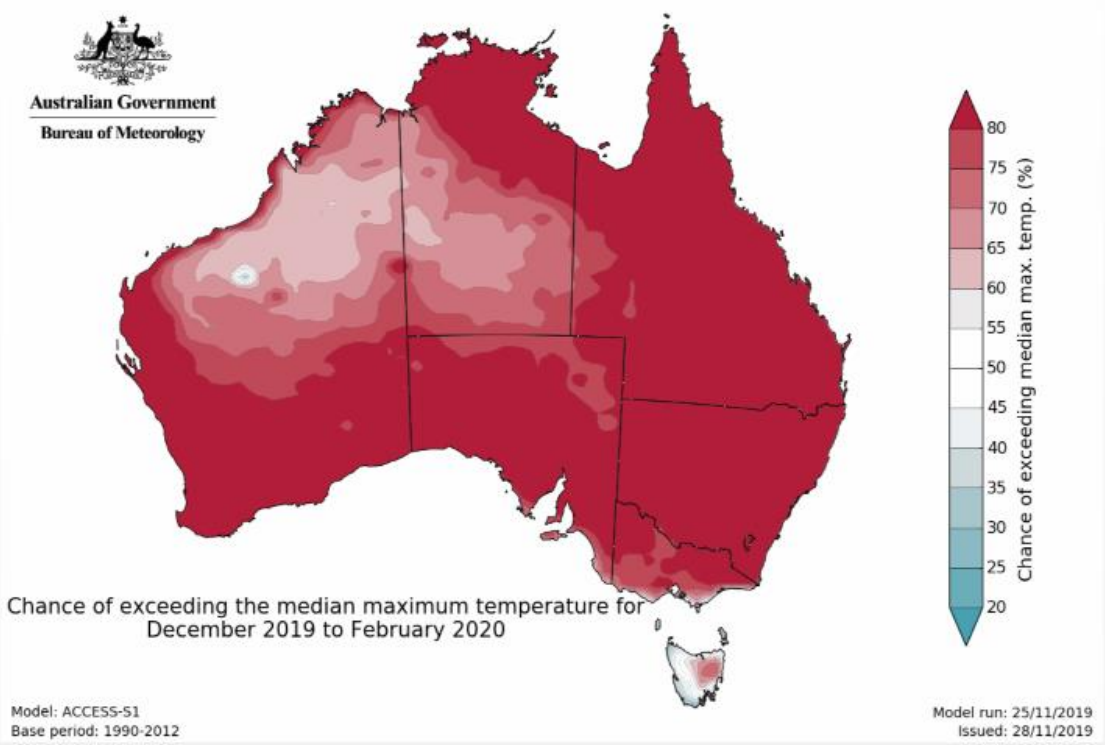
Summer temperature prediction



Summer 2019/20 prediction

- Summer (December to February) days are likely to be warmer than average, with probabilities exceeding 80% for approximately two thirds of Australia.
- This will result in greater rates of evaporation and the drying of shallow, ephemeral wetlands.
- Next update will be on 20 December 2019.

Source: www.bom.gov.au

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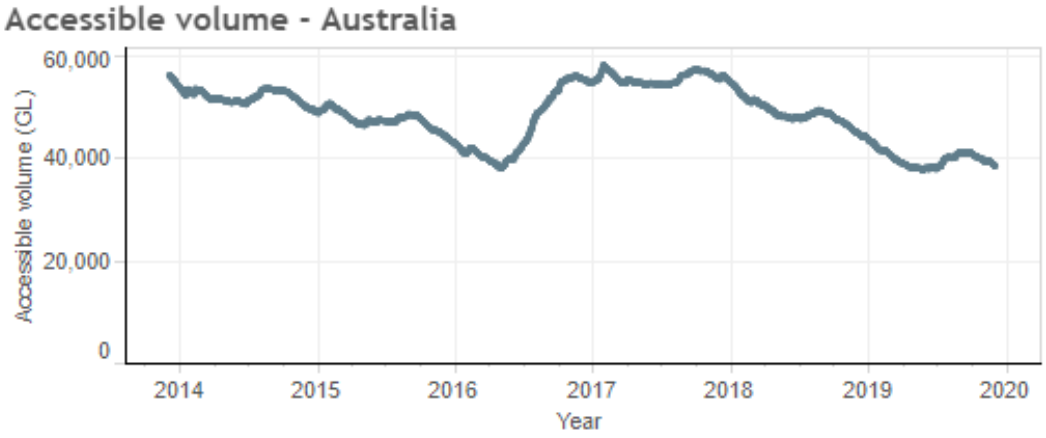
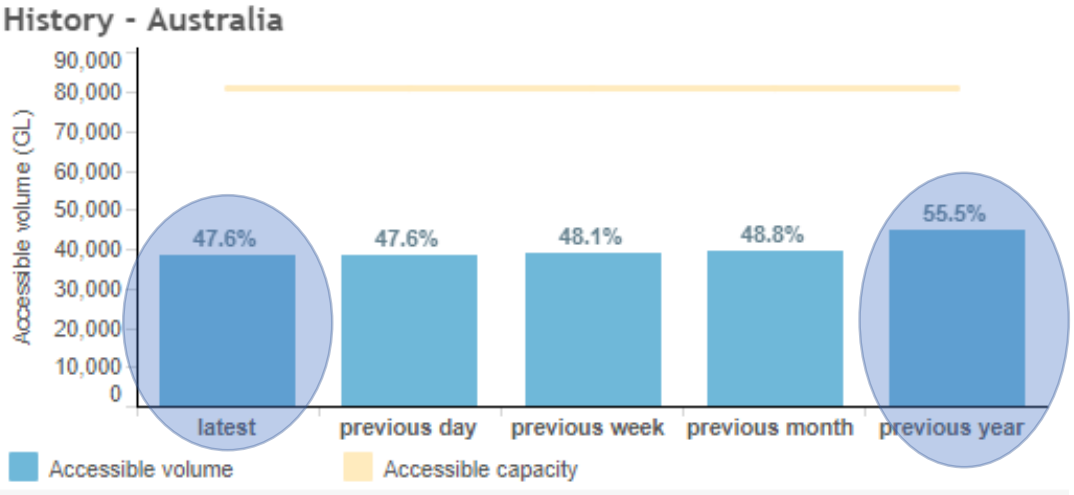
Australian water storage levels

- Water storage levels provide an indicator of the availability of waterbird habitat and waterflows through feeder systems.

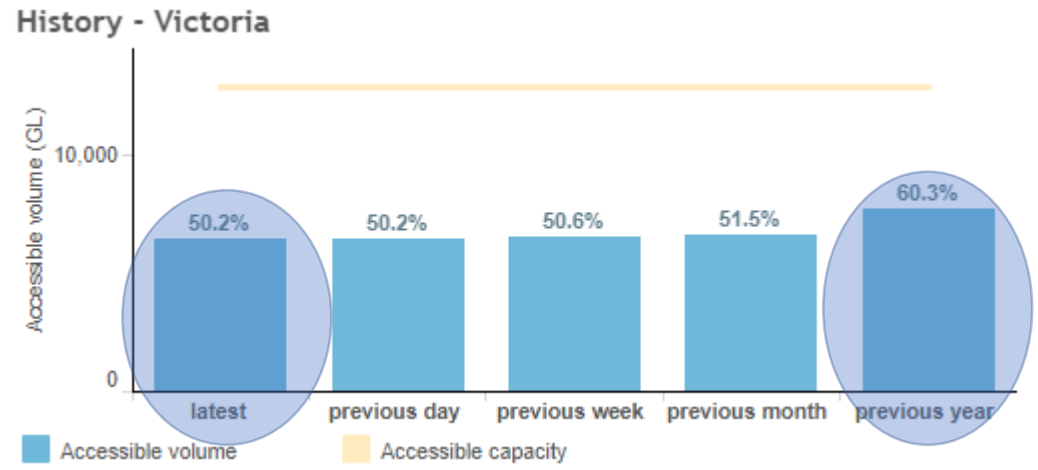
- In 2019, Australia's water storages declined in volume by 7.9% from the same time last year, from 55.5% to 47.6%.





Victorian water storage levels

- The total (Melbourne and Regional) Victorian water storage levels are currently at 50.2%.
- Storage levels have decreased by 10.1% from the same time last year.



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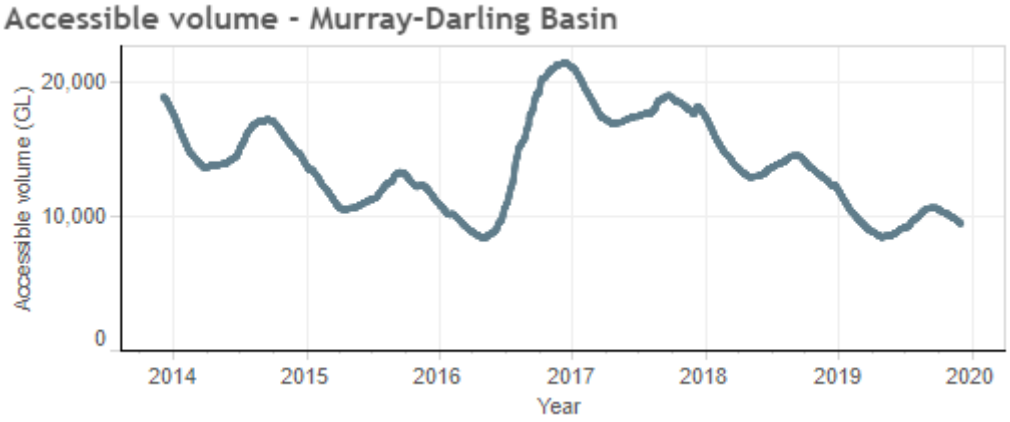
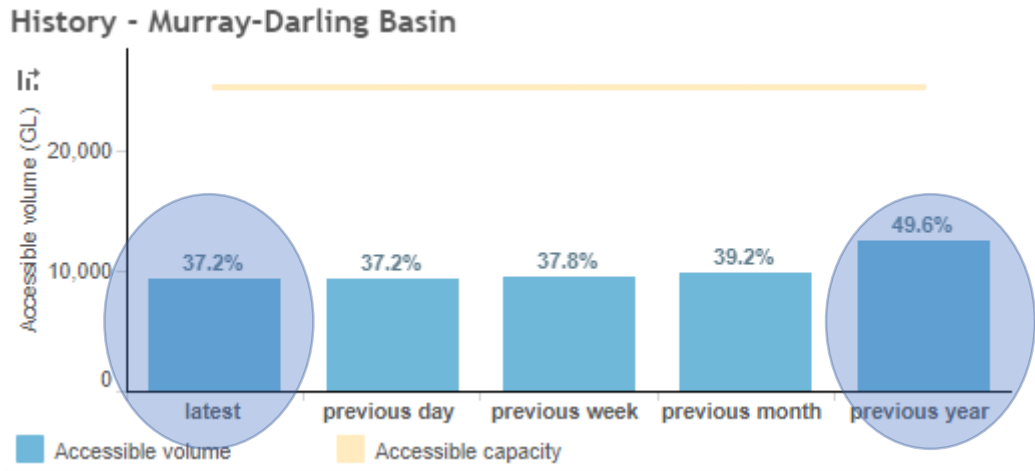
Source: www.bom.gov.au

Murray-Darling Basin water storage levels

The Murray–Darling Basin is a critical area for waterfowl production and Australia's most developed river basin (240 dams storing 29,893 GL).

- Storage systems in the MDB are at 37.2 % of capacity, which is 12.4% lower than at the same time last year and 32.7% lower than in 2017.
- Storages volumes in the northern MDB continue to decline, reaching a combined volume in mid-November of 6.7% of capacity, which is 1.6% lower than at the lowest point during the Millennium Drought.
- Storage volumes in the southern MDB were at 46.7% of capacity at 18 November.





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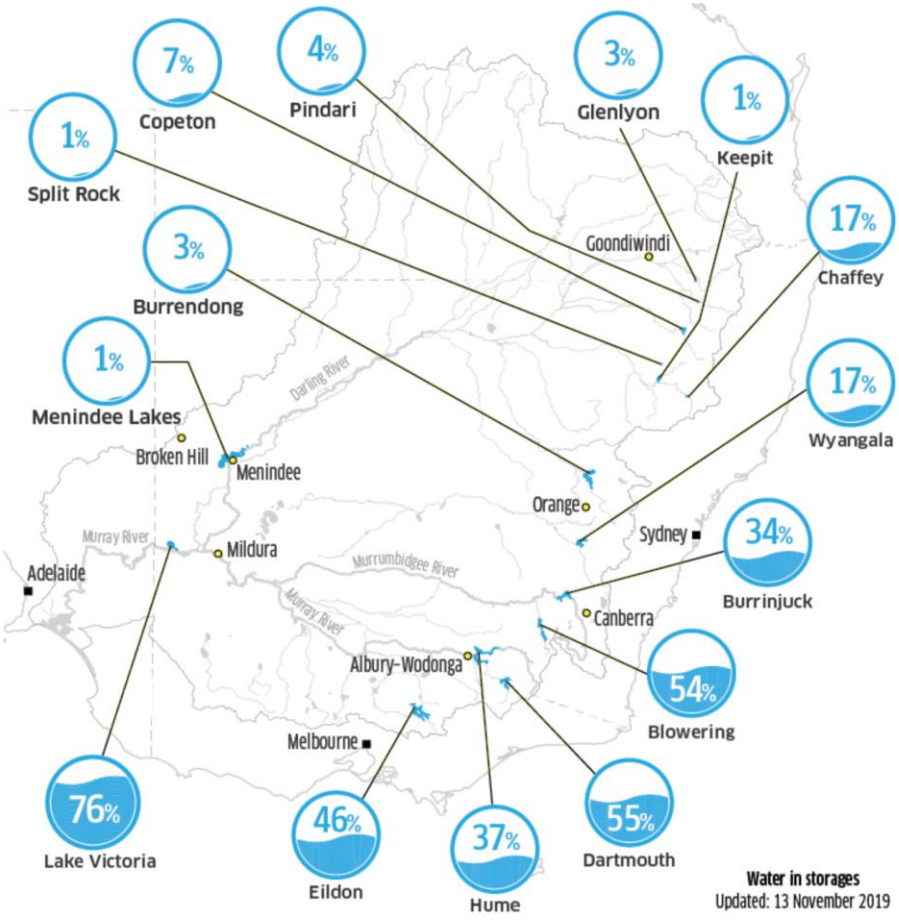
Source: www.bom.gov.au

Murray-Darling Basin water storage levels cont.



- Water storages in the northern basin continue to deteriorate, with levels continuing to fall. This continues the trend of the past three years, with little indication of improvement for the coming summer.
- In the southern Basin, storage levels are less critical, however, predicted hot and dry conditions over summer will put pressure on available water resources.

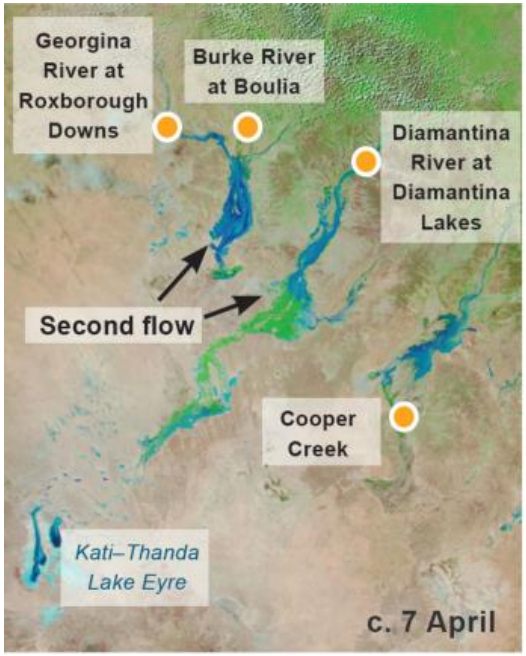
Game Management Authority

Source: Murray Darling Basin Authority

Flows into Lake Eyre

- In 2018, annual rainfall was below average across much of the Lake Eyre Basin.

- However, two heavy rainfall events across the upper-Diamantina and Georgina River catchments (summer monsoon and ex-tropical cyclone Trevor) from late-January to March 2019 generated flood activity and runoff into the Lake Eyre Basin. Water reached Lake Eyre in mid-March and early June.

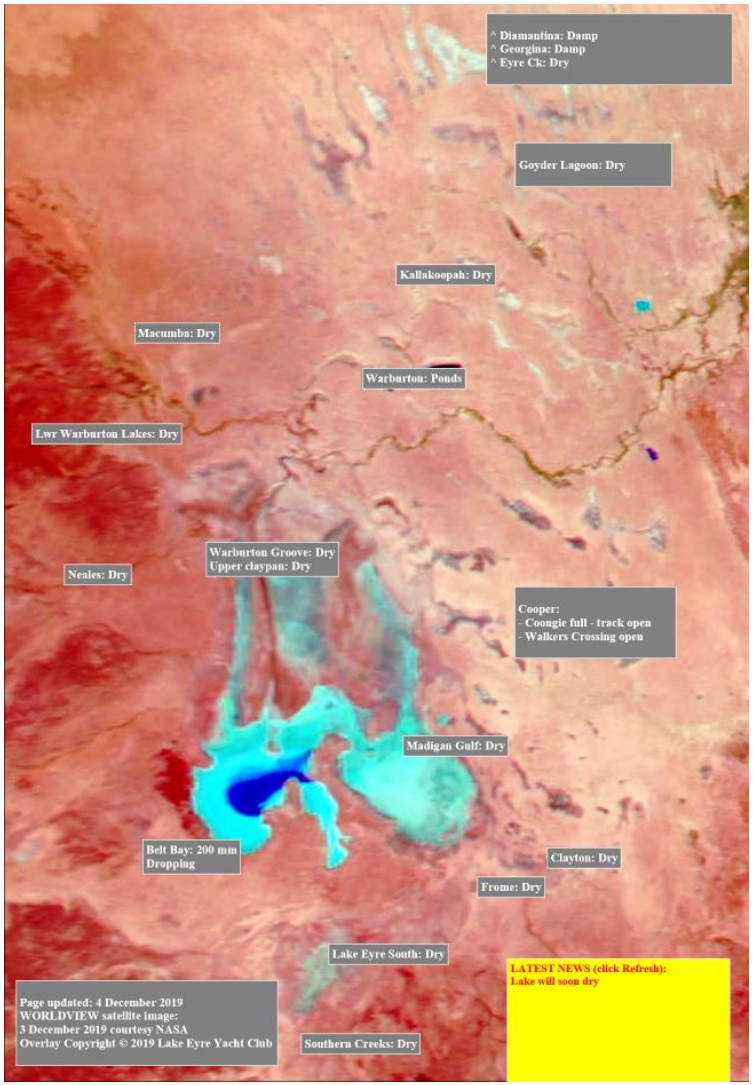


- Water running through the feeder river systems into Lake Eyre provided waterbird breeding habitat and would have triggered a breeding event. At the time, game duck abundance was below average.

Game Management Authority

Flows into Lake Eyre cont.

- Water levels in Lake Eyre peaked during the first week of July but continued to recede due to evaporation. Feeder systems have largely dried and Lake Eyre is expected to be dry by early-summer.



- Despite high rainfall in the north-east of the Lake Eyre Basin earlier this year, the drought continues in the southern Basin. The western Basin is also experiencing severe rainfall deficiencies.
- Given it takes approximately 1-2 months for the food systems to respond and 4-5 months for game ducks to pair bond, nest and chicks to fledge, only one breed would have resulted from this flooding event.
- Birds using this system would have dispersed to refuge areas. Recently recruited birds are likely to have been detected at wetlands surveyed during the Eastern Australian Waterbird Survey.

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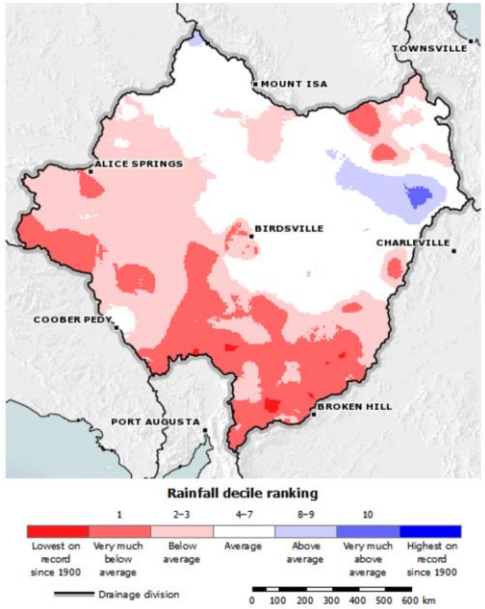
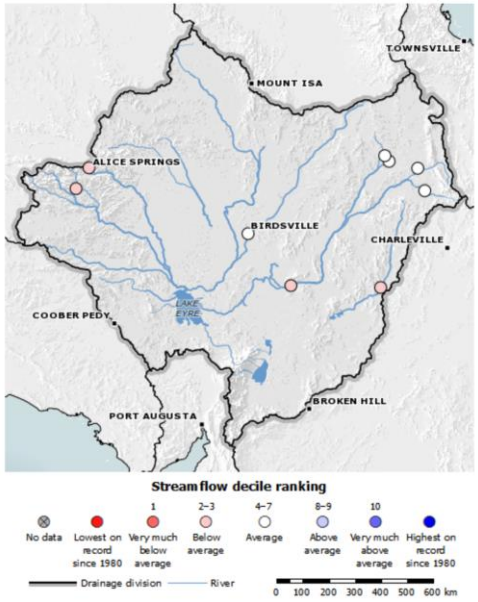
Image source: Lake Eyre Yacht Club. Copyright image NASA
Note: only dark blue colour denotes water

Eyre Basin



- Rainfall was average or lower than average for most of the Eyre Basin, particularly in the south.

- The far northwest of the Basin received some rainfall at the end of October. Mean rainfall was 5mm, 67% lower than the long-term mean of 15mm.



- Streamflows were average or below average for all sites. The only river to flow during October was the Barcoo River at Blackall in the northwest where rain fell during the end of the month.

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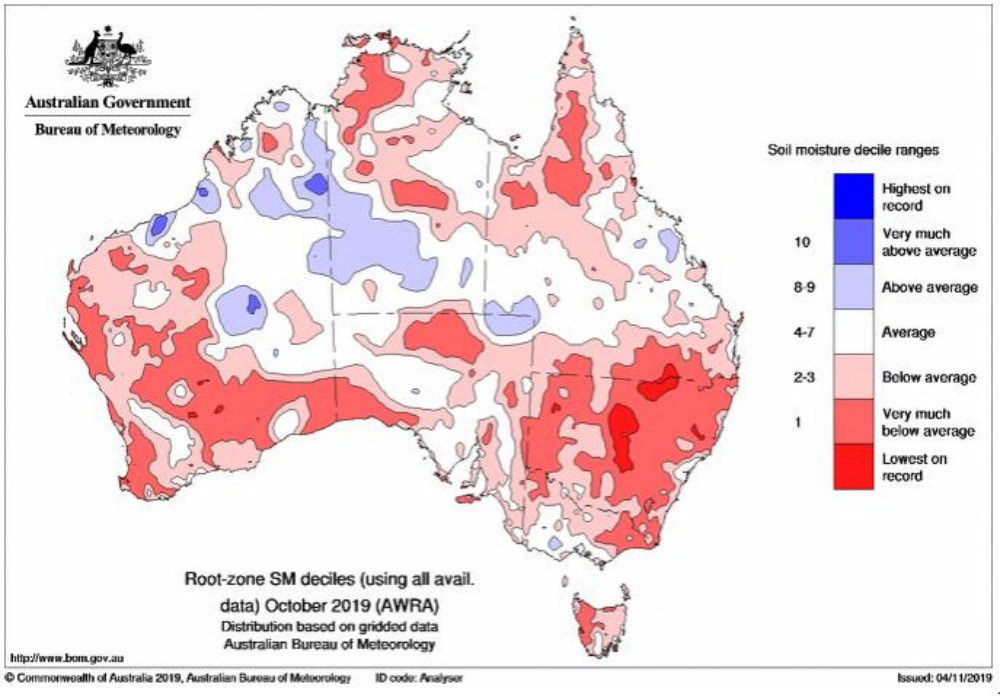
Soil moisture – October

- October soil moisture in the root zone (0-100cm) was below average for nearly all of NSW, southern QLD and much of the Peninsula and Gulf Country, much of Victoria away from the south west, central southern and south Gippsland, most of Tasmania, much of northern, south-western and eastern South Australia, most of western and southern Western Australia and pockets of the Kimberly and much of the northern half of the Northern Territory.



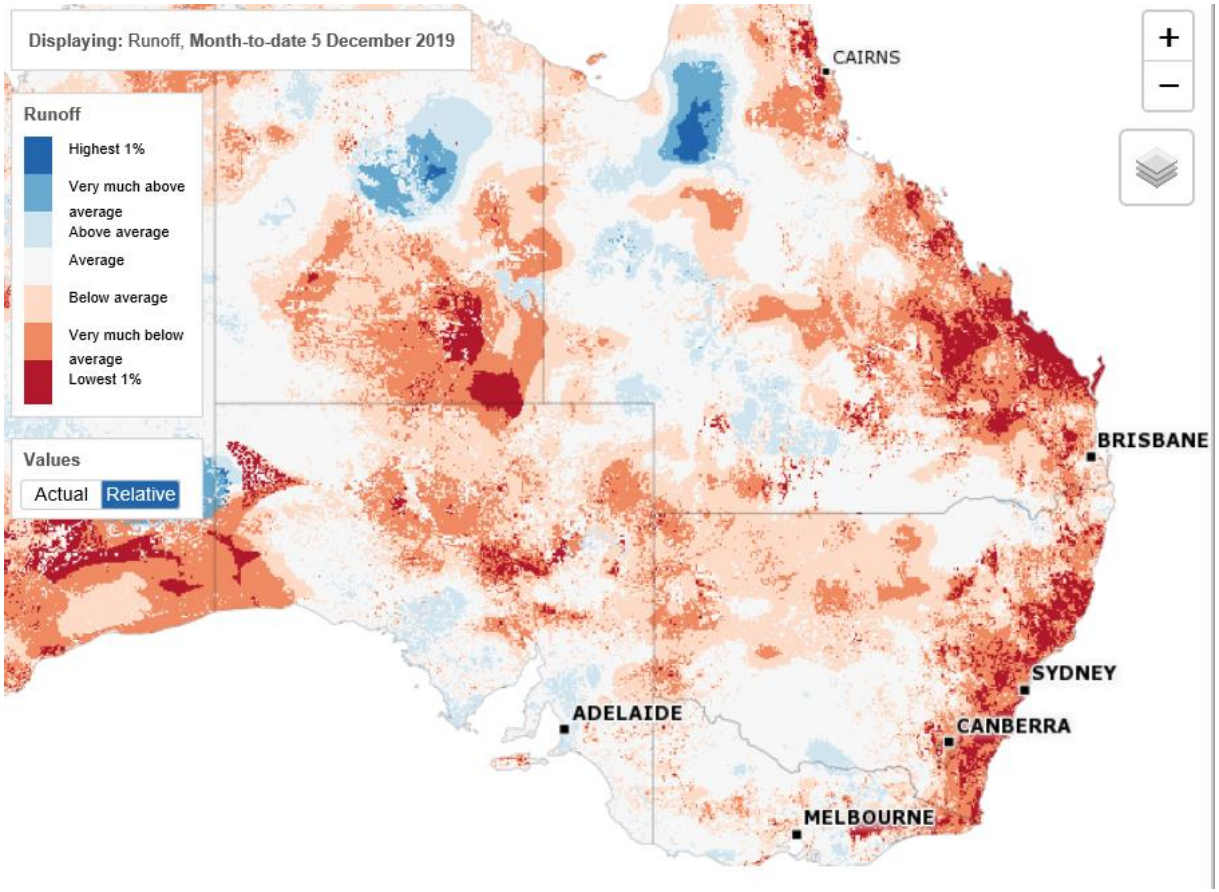
Game Management Authority

Source: www.bom.gov.au

Runoff

Runoff impacts the availability of water in the wetlands and the health of riverine systems. It has a direct influence in the creation and maintenance of waterbird habitat.

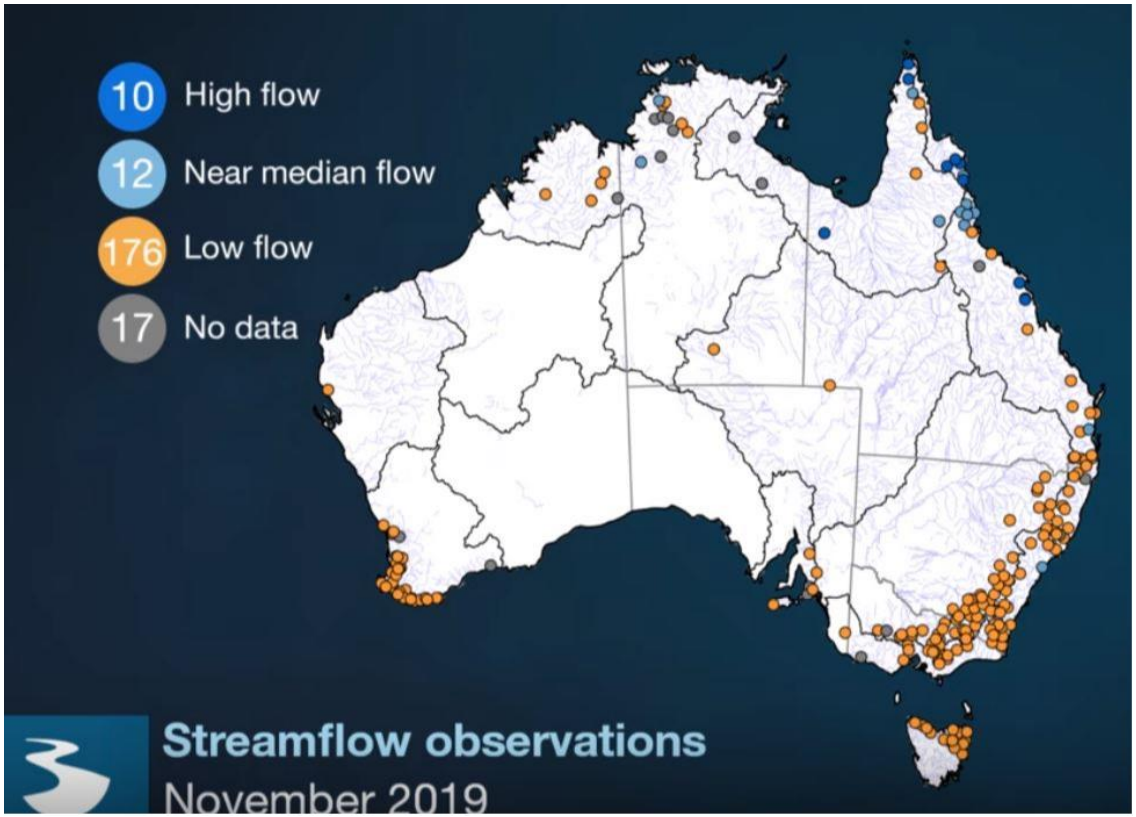
- Large parts of QLD and NSW have experienced “below average”, “very much below” average to “lowest 1%” runoff during the last month.
- Parts of western and northern QLD and southern NSW, northern and southern Victoria and southern SA have experienced “average” to “above average” runoff.
- Part of northern QLD has experienced “very much above average” runoff.



Game Management Authority

Source: www.bom.gov.au

Streamflow predictions



Streamflow has a direct influence on waterbird habitat extent and population abundance. Rivers and creeks provide feeding, resting and breeding habitat and provide inputs into wetlands where they have not been diverted.

Current prediction

- For November 2019 – January 2020, low stream-flows are likely at 176 (128 in 2018) locations throughout Australia, near median flows at 12, and high flows at 10.
- Victorian predictions indicate lower than median stream-flows are likely in most survey areas.

Note: Forecasts have not been issued for 55 locations due to very low model skill or missing observed data

Source: www.bom.gov.au

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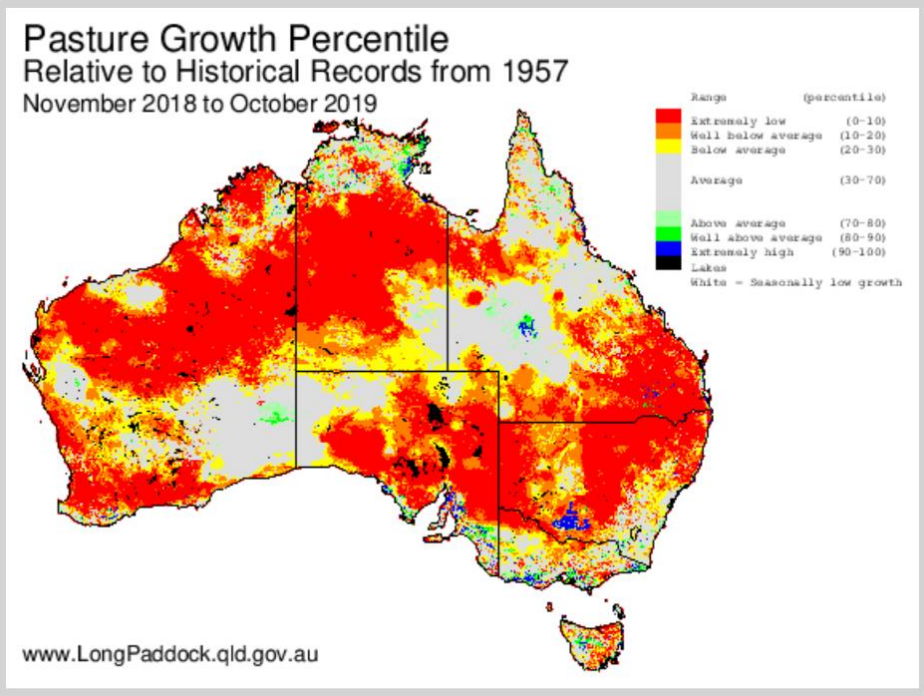
Pasture conditions

Pasture conditions are a coarse indicator of potential feeding habitat for grazing species, such Wood Duck and Mountain Duck, and nesting habitat for ground-nesting game ducks.

Current conditions

- Compared with historical records, large parts of eastern Australia have recorded “well below average” to “extremely low” pasture growth, except for areas in central and northern Queensland and scattered parts of the south-eastern NSW and Victoria which were average.



- Some parts of far east and western Gippsland, the south west coast of Victoria and the south east of South Australia have recorded “above average” to “extremely high” pasture growth over the last 12 months.
- An isolated area in central Queensland also recorded “above average” to “extremely high” pasture growth over the last 12 months.

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Source: www.longpaddock.qld.gov.au

Eastern Australian Waterbird Survey (EAWS)

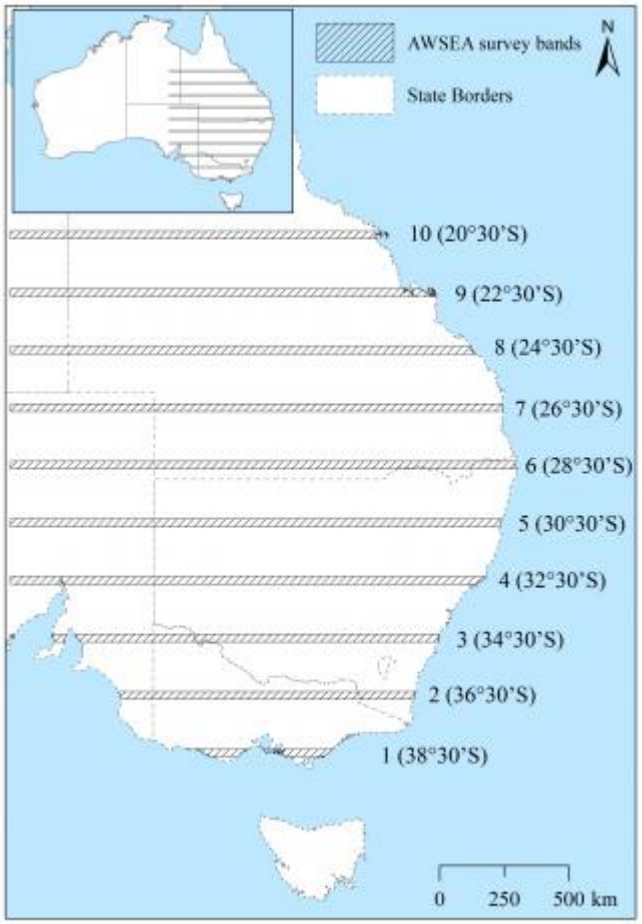
The EAWS monitors changes in the abundance and distribution indices of 50 waterbird species in eastern Australia.

The EAWS was designed by Graeme Caughley and has been conducted annually in October since 1983. Waterbirds are counted from the air across ten aerial survey bands (each 30 km in width), every two degrees of latitude, crossing eastern Australia to monitor all wetlands over 1ha in size.

The EAWS provides:

- an index (not total count) of abundance of waterbirds, including game ducks
- information on the distribution of waterbird and game duck populations along survey bands
- the extent and distribution of habitat along survey bands, and
- limited information on waterbird breeding.

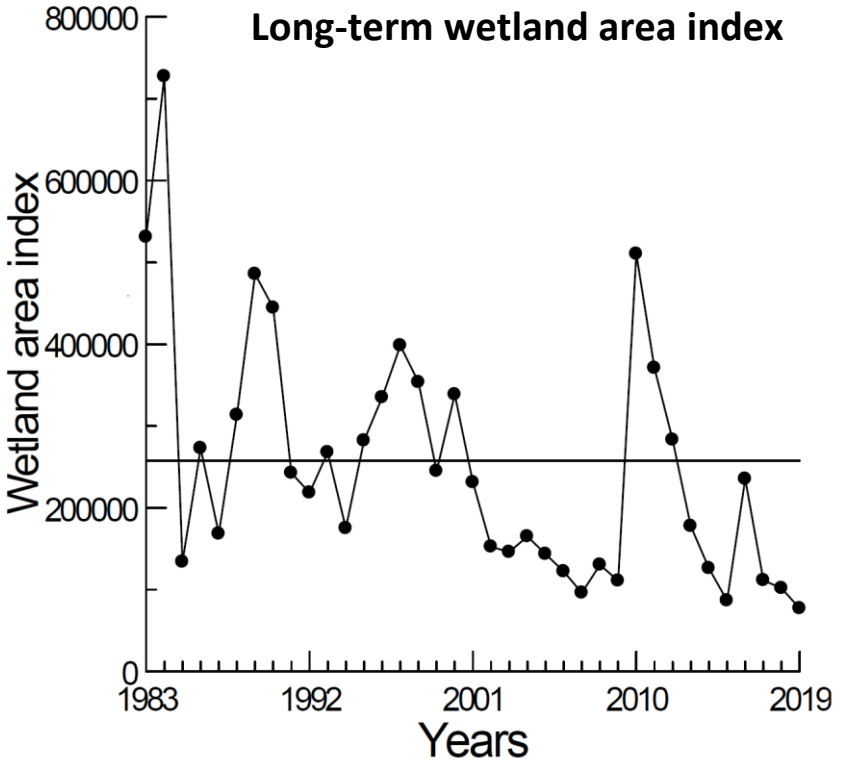
The information is valuable for examining waterbird trends on over one-third of continental Australia and over a long period.



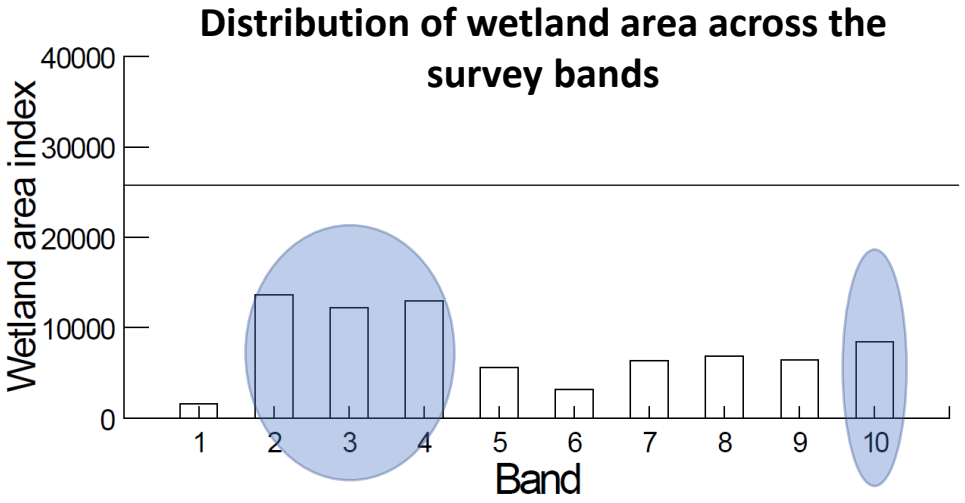
Wetland area index

The wetland area index is a measure of wetland availability across all 10 EAAWS transects. This gives an indication of the habitat available for waterbirds.

- The 2019 wetland area index was the lowest recorded since surveys began 37 years ago and reflects the dry conditions across eastern Australia over the last three years.

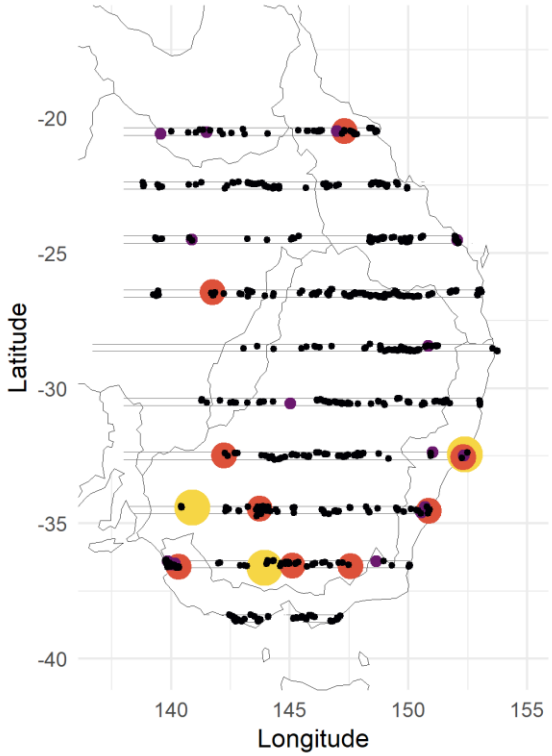


Changes over time in wetland area in the Eastern Australian Waterbird Survey (1983 - 2010); horizontal line shows long-term average.



Wetland area index in relation to the 10 survey bands of the Eastern Australian Waterbird Survey (1983 - 2019); horizontal line shows long-term average.

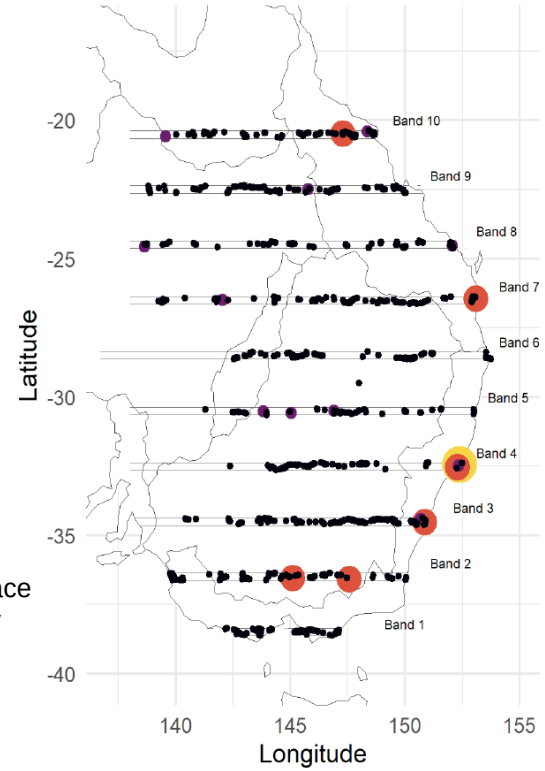
Wetland distribution



2018

Wetland area (ha)
- 0.001 -1000
- 1000-2000
- 2000-5000
- >5,000

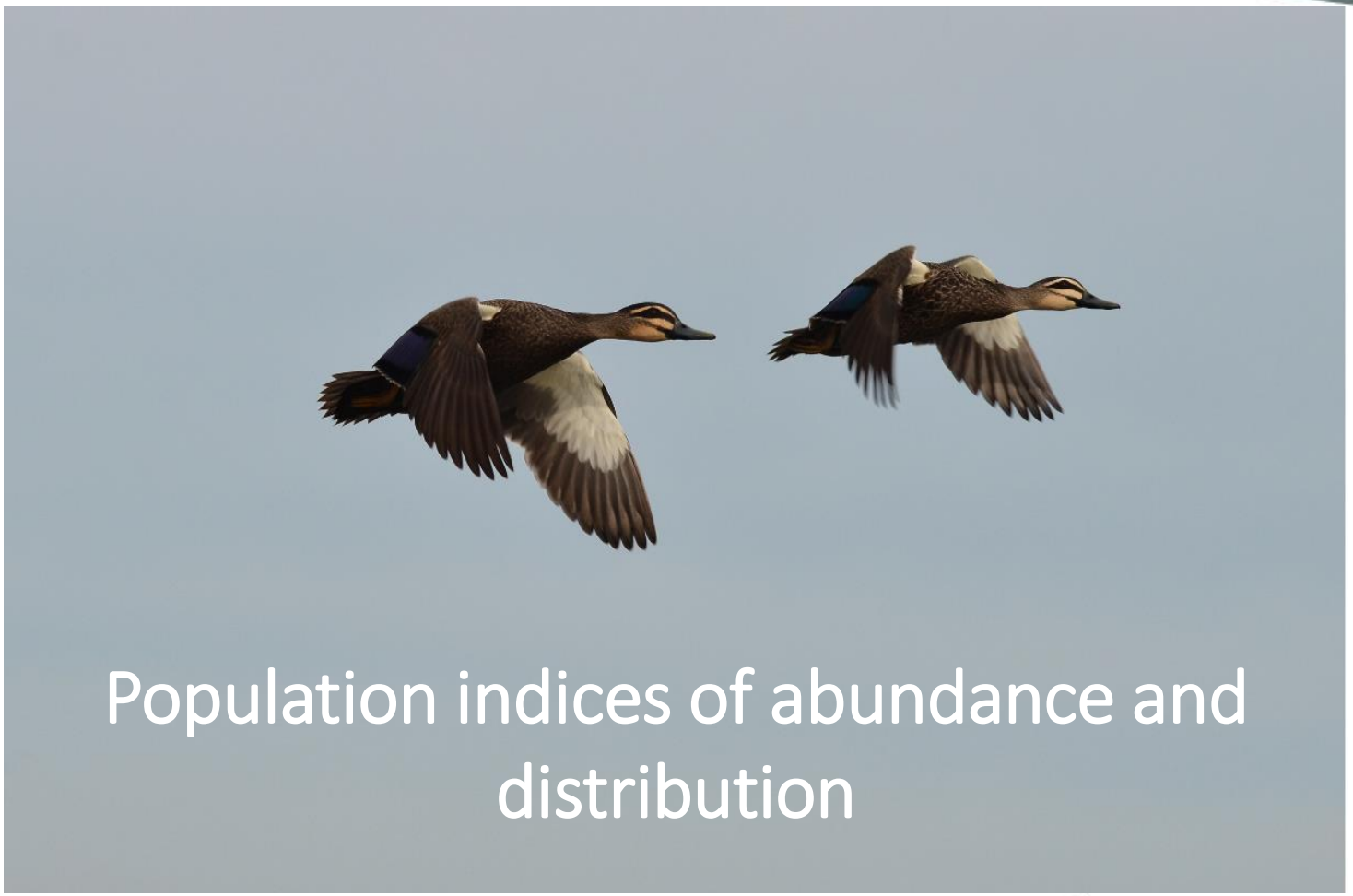
All surveyed wetlands with surface water present are plotted; dry wetlands not plotted



2019

Wetland area (ha)
- 0.001 -1000
- 1000-2000
- 2000-5000
- >5,000

- The Murray-Darling Basin has experienced its worst drought period in over 120 years and many critical wetland systems in the Basin are dry.
- The majority of the habitat surveyed occurred in Bands 2 and 10 and at coastal locations in Bands 3 and 4. Areas in south-west Victoria and south-east South Australia are also holding water.
- Some rivers and wetlands in the northern Lake Eyre Basin including the Diamantina and Georgina rivers held small amounts of water and supported low numbers of waterbirds. Lakes Torquinnie and Mumbleberry held water and supported moderate to high numbers of waterbirds. Lake Galilee was shallow and drying and supported the largest concentration with more than 43,000 waterbirds.



Population indices of abundance and distribution

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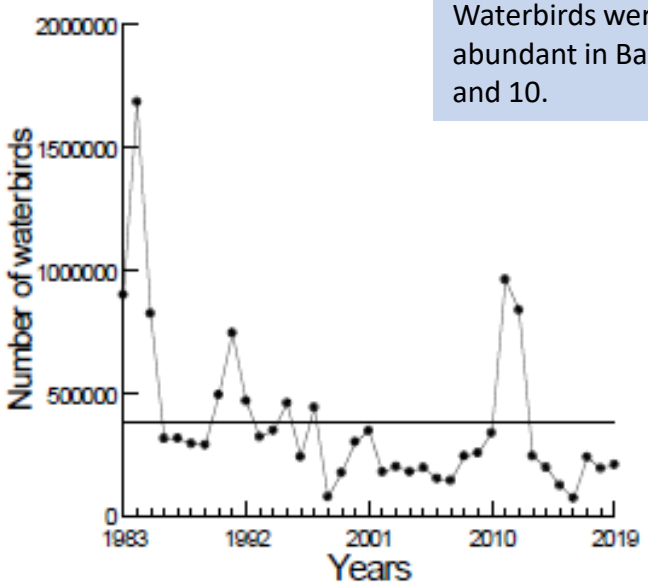
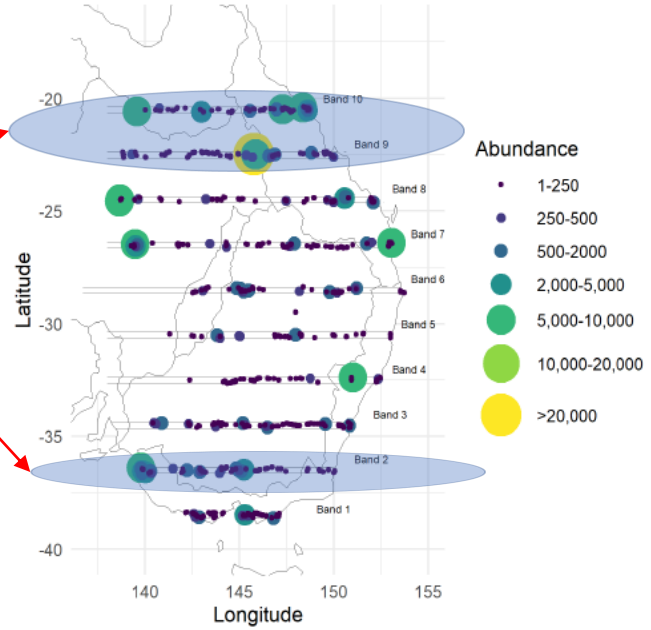
Index of waterbird abundance
(all waterbirds)

Up to fifty waterbirds species are surveyed in October each year and includes all Victorian game duck species and non-game species such as swans, Freckled Duck, ibis, coots etc.

- The total index of waterbird abundance (n=208,364) increased by 8% from 2018 (192,906).
- The waterbird abundance index is the 13th lowest in 37 years.



Waterbirds were most abundant in Bands 2, 9 and 10.



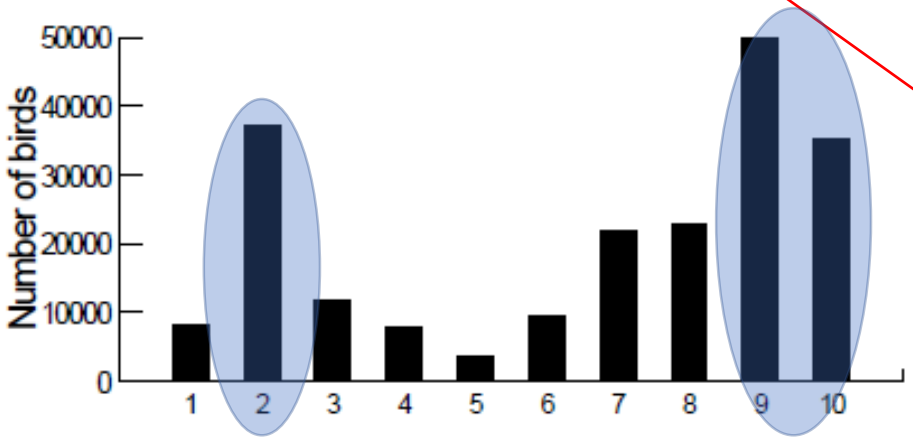
Dry wetlands and wetlands without waterbirds weren't plotted

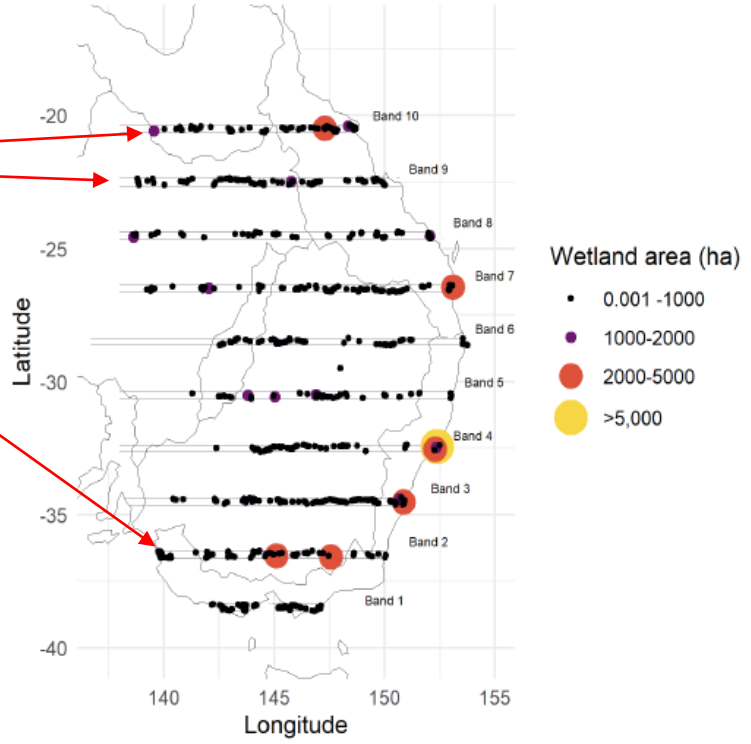
The abundance index is not a total count. It provides information on the trends in waterbird abundance along the survey bands.

EAWS waterbird distribution

Where are the most birds in relation to wetlands?

Waterbirds were most abundant in Bands 2, 9 and 10.

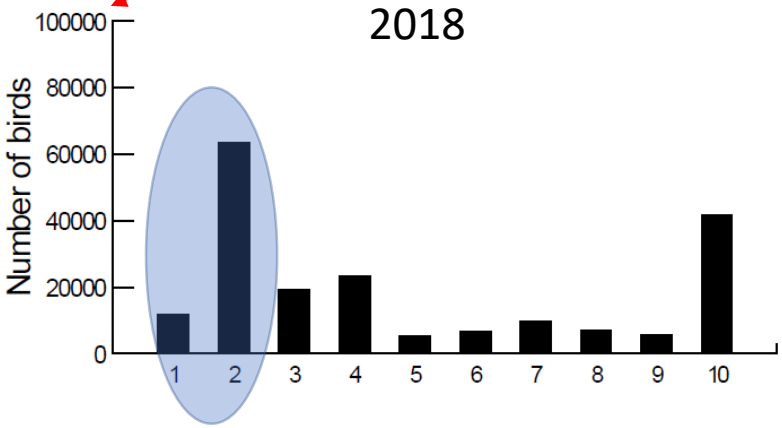


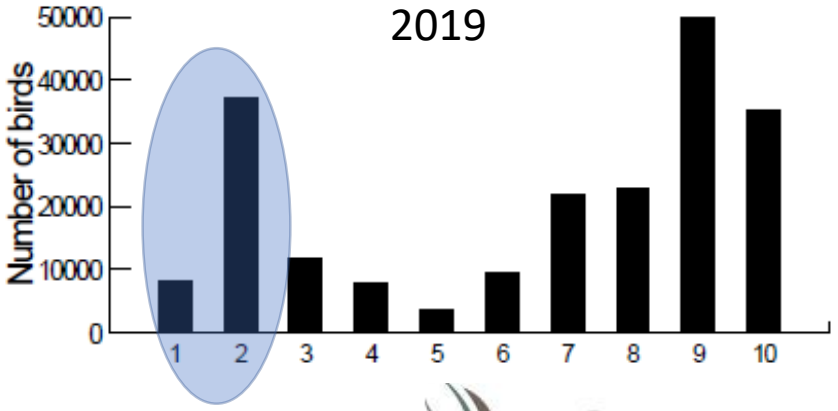


- Surveyed waterbirds were most abundant in Bands 2, 9 and 10.
- The majority of the habitat occurred in Bands 2 and 10 and coastal areas on Bands 3 and 4.
- Waterbirds were more concentrated and less widely dispersed than last year, reflecting the decline in habitat availability in the Murray-Darling Basin.
- Eleven wetlands supported more than 5,000 waterbirds representing 50% of the total abundance.

EAWS Waterbird abundance index Bands 1 & 2

- Waterbird abundance (all species) in Bands 1 and 2 has declined by approximately 40% from 2018.
- Note the difference in scales between the graphs.





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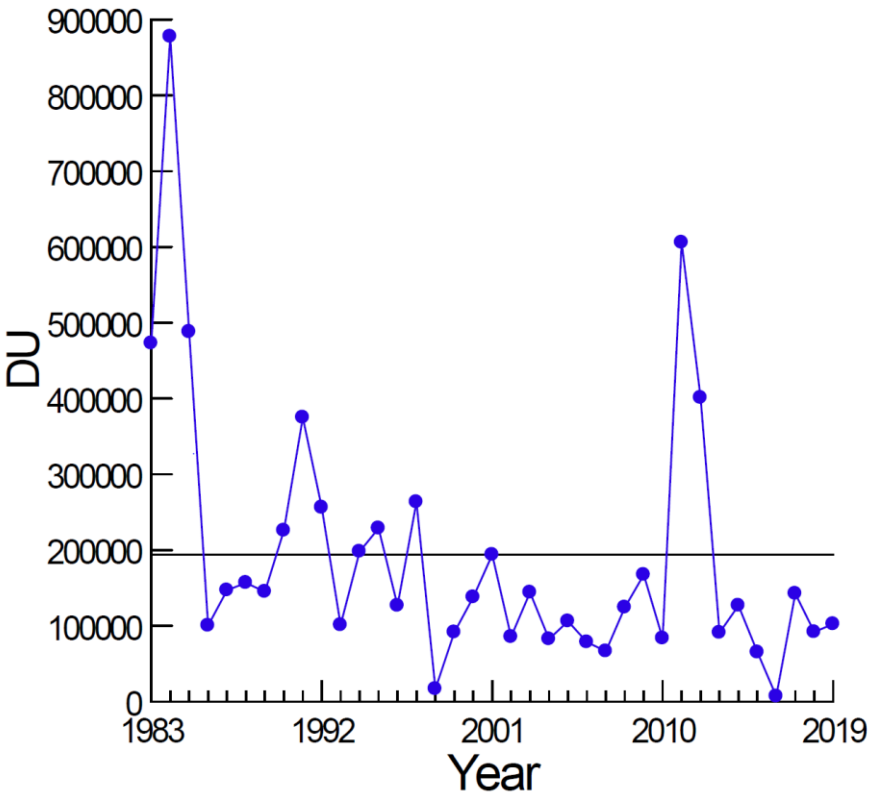
EAWS game duck abundance index



This index includes information on game ducks only.

- The abundance index increased by 8% from the previous year but is well below the long-term average.
- The 2019 game duck index was the 13th lowest recorded in 37 years.
- Bird detectability can increase during dry periods as birds concentrate on remaining open wetlands. This may have contributed to the observed increase, but the extent is unknown.

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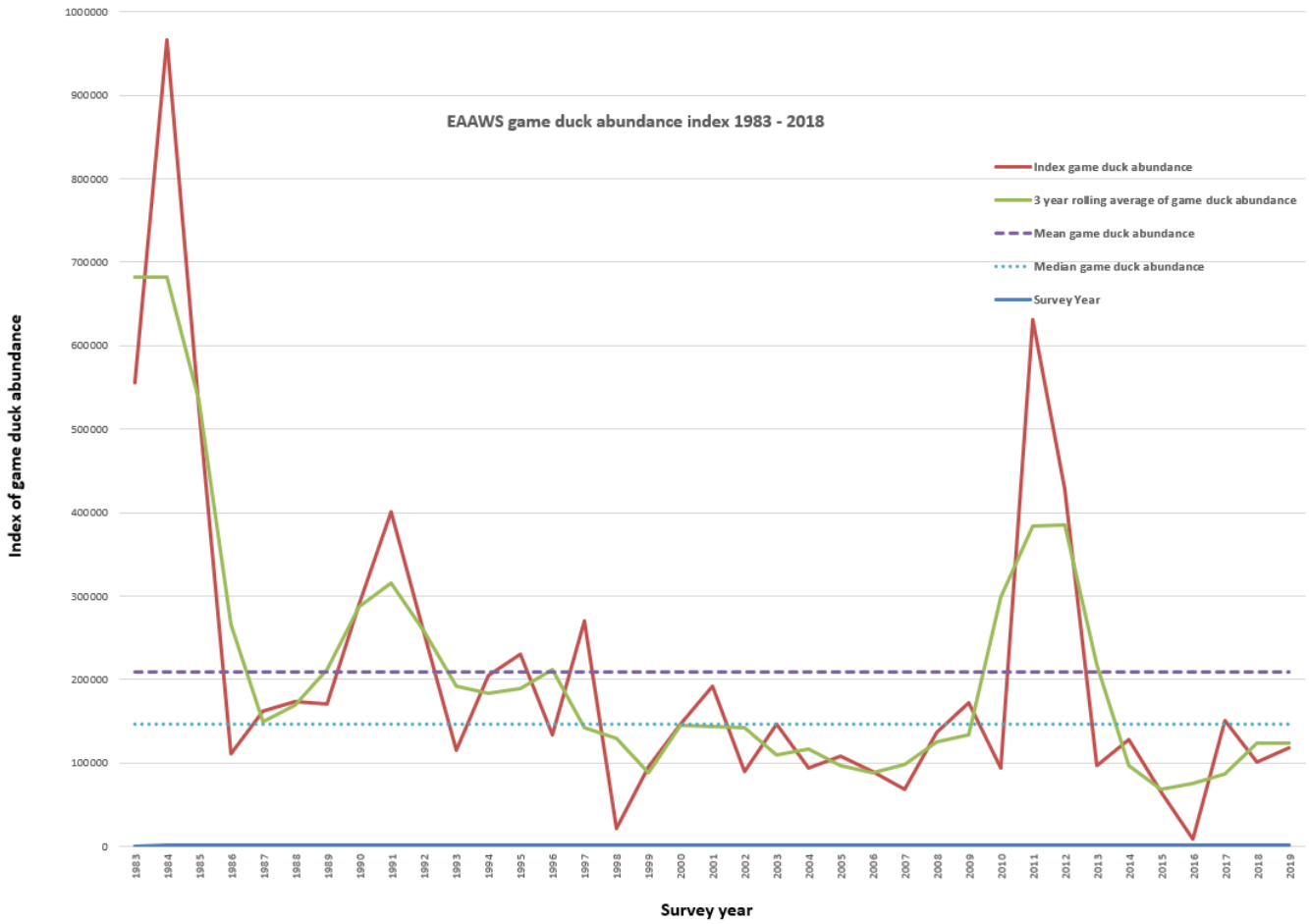
Game duck abundance index cont.

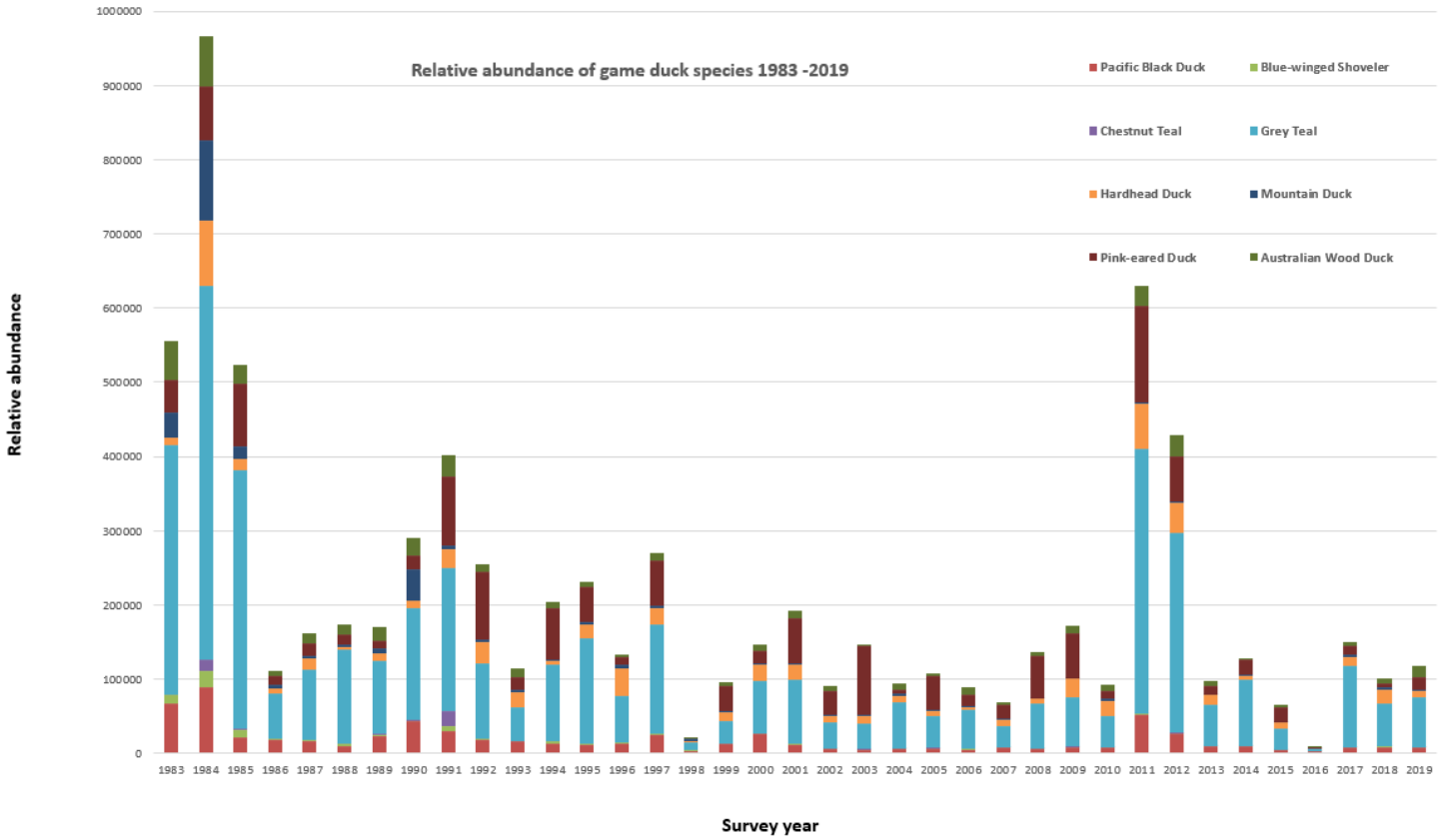


When considering management implications, the abundance index **must** be considered in context with:

- distribution of birds
- habitat availability and distribution
- climatic forecasts
- concentrations of birds

- This graph includes abundance index data (red line) and the rolling (or moving) average (green line). A rolling average is a technique used to get an overall trend in a data set. In this case, the rolling average is calculated for three-year subsets.
- The long-term average and median abundance levels are also included. The median is the mid-value and is more statistically suitable than the average when outliers are present.

Relative abundance of game duck species 1983-2018 (EAWS)



The majority of game ducks detected in 2019 EAWS were:

- Black Duck 36.1% (8.5), Grey Teal 27.6% (56.8), Wood Duck 25% (6.7), Pink-eared Duck 2.1% (5.8) and Hardhead 0.3% (17.0).
- Figure in parentheses are from 2018.

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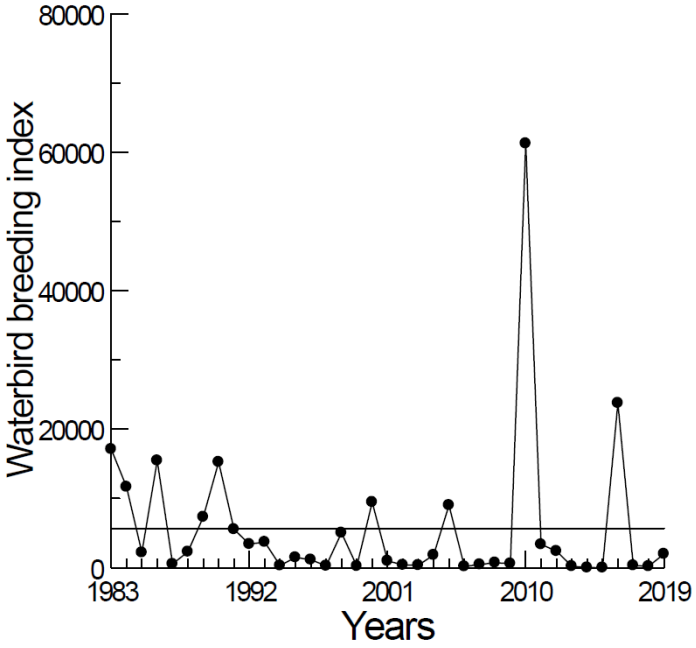
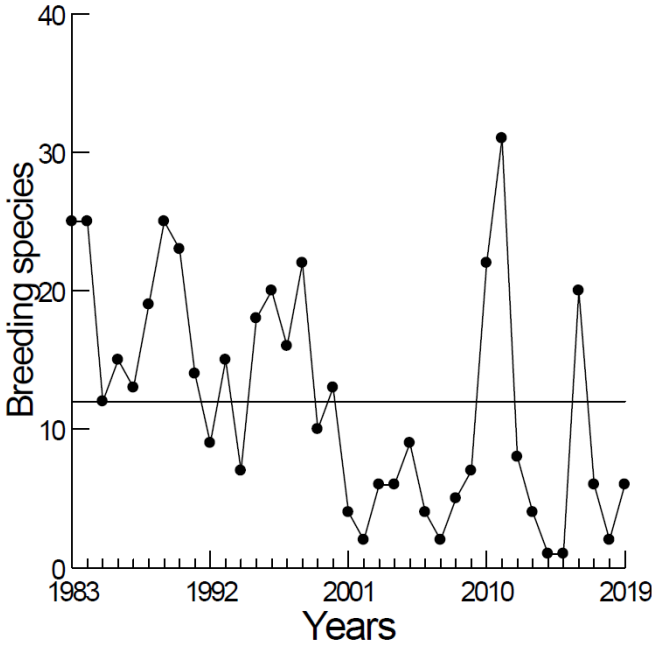
Waterbird breeding (all species combined)





- The EAWS total breeding index (all species combined) increased from the previous year but remains well below the long-term average.
- EAWS breeding species richness (i.e. the number of different species observed breeding) was also low, with only six species recorded breeding: Black Swans and Straw-necked Ibis comprised 97% of the total.
- With the exception of 2016, breeding has been supressed following the major wet period in 2010-12.

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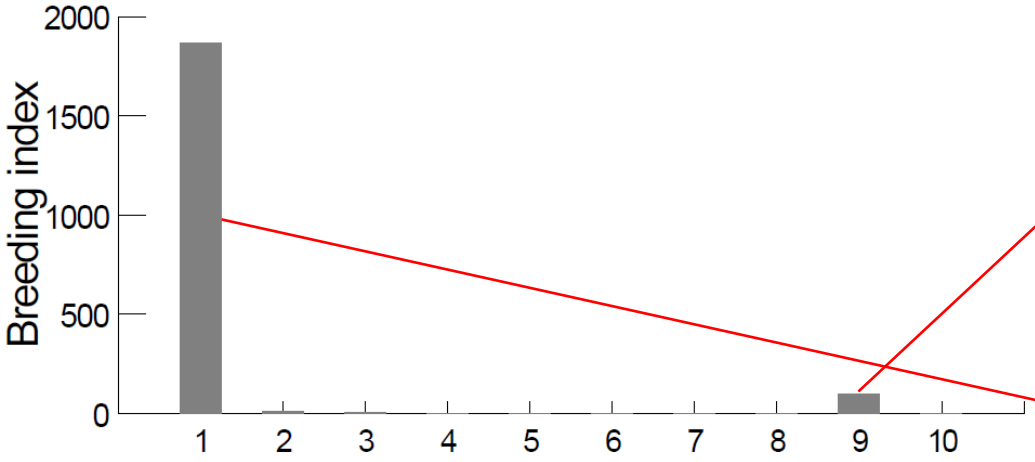
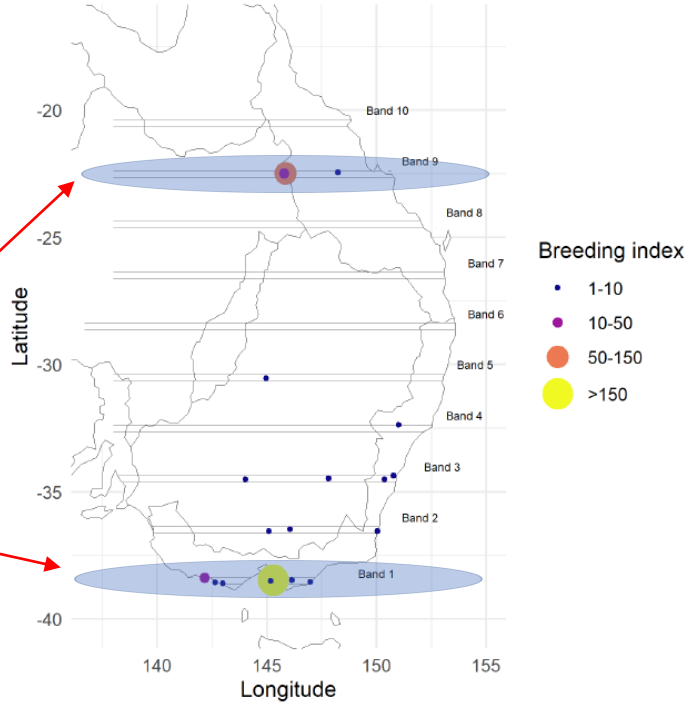
Waterbird breeding (all species combined)





Only wetlands with breeding recorded are plotted.

- Most of the breeding occurred in Band 1, with some occurring in band 9. Only six species were recorded breeding.
- Breeding was heavily concentrated at one site – Rhyll Swamp, Westernport Bay, in Band 1.

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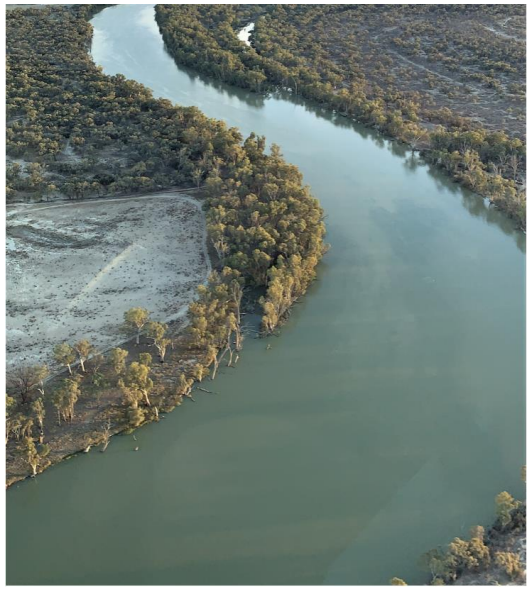
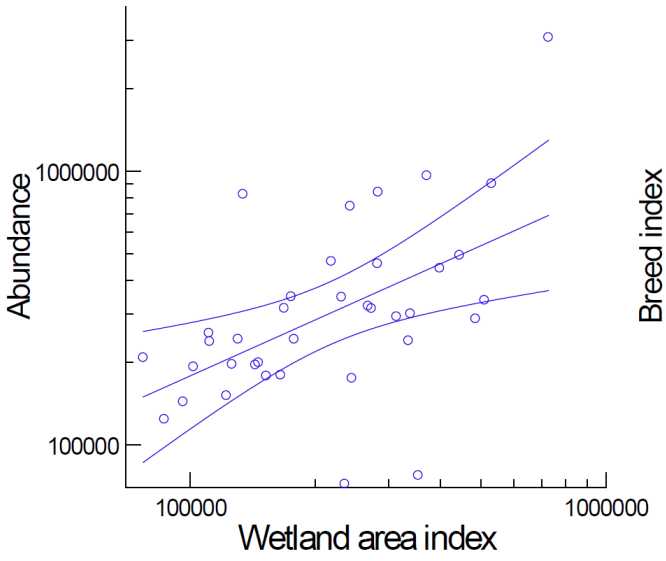
Game duck breeding

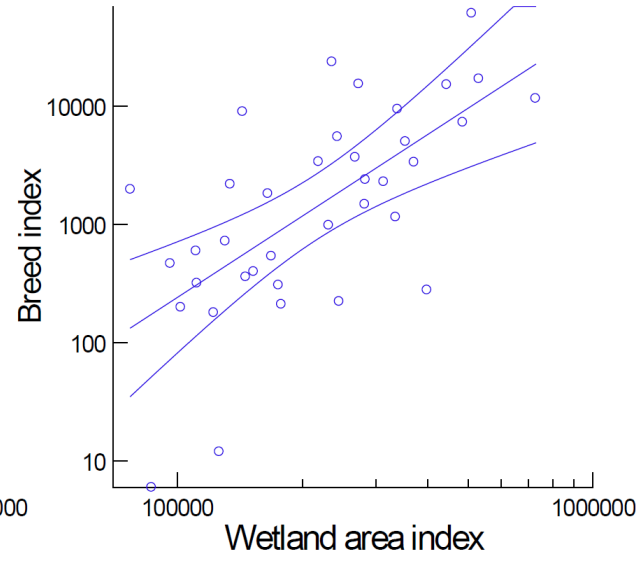
- The 2019 opening weekend bag survey showed varying levels of breeding from the previous year (2018) for all game species, ranging from 14.6% - 44%. In total, first year birds comprised 27% of the total harvest.
- For 2019, a new and more robust process to collect this data was introduced. Ageing was done according to a more rigorous process and regions were introduced to reflect regional variation. There is no reliable recent data to compare this figure to.

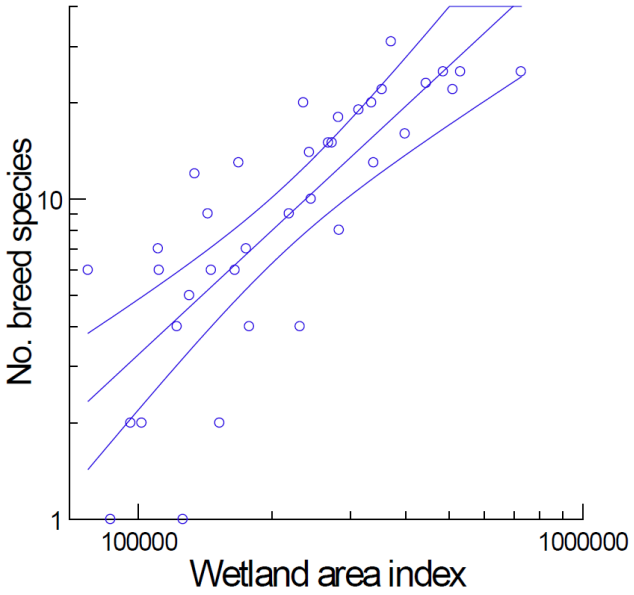
- Birds will breed locally where conditions are good. However, the main production areas within the Murry-Darling Basin were largely dry and breeding was reduced.
- Flooding in the Eyre Basin earlier this year allowed ducks to breed once, contributing new recruits to the population. This system has largely dried following flooding earlier this year.



Interactions: abundance, breeding and habitat







- Overall waterbird abundance, breeding index and breeding species increase with available habitat (wetland area index).
- Declines in wetland area are likely to result in declines in waterbird abundance, breeding and the number of species breeding (species breeding richness).

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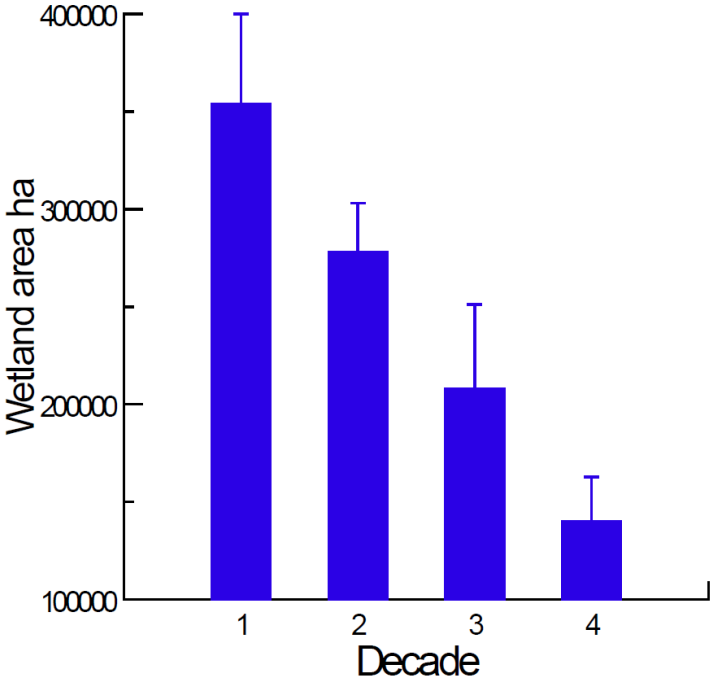
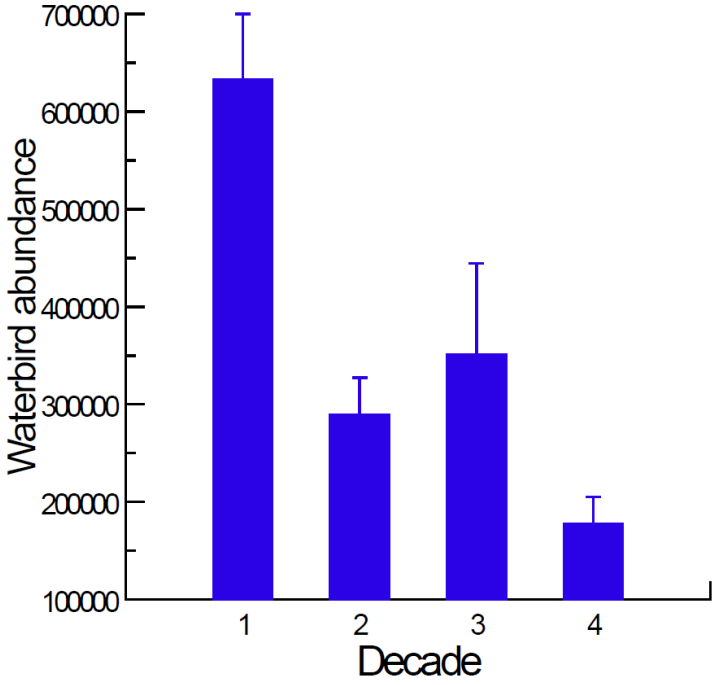
EAWS wetland area and waterbird abundance trends over time





- All major indices for waterbirds (total abundance, breeding index, number of species breeding and wetland area index) continue to show significant declines over time.
- Long-term trends are more informative for predicting population status than year-to-year fluctuations.

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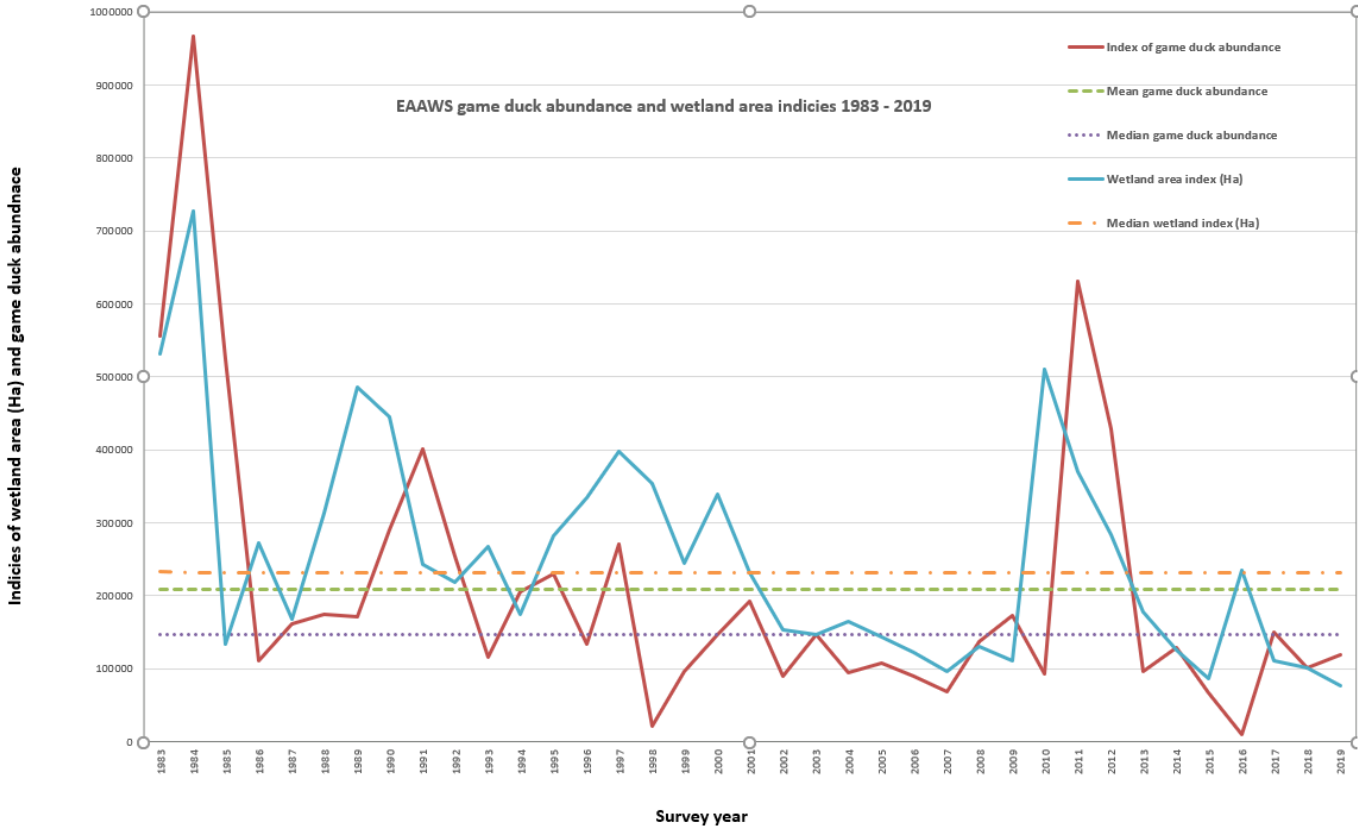
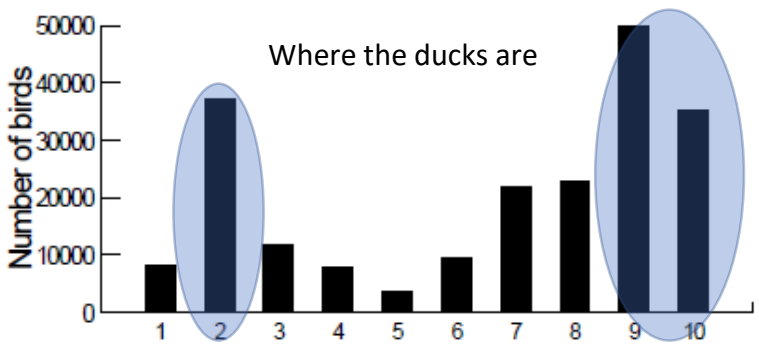
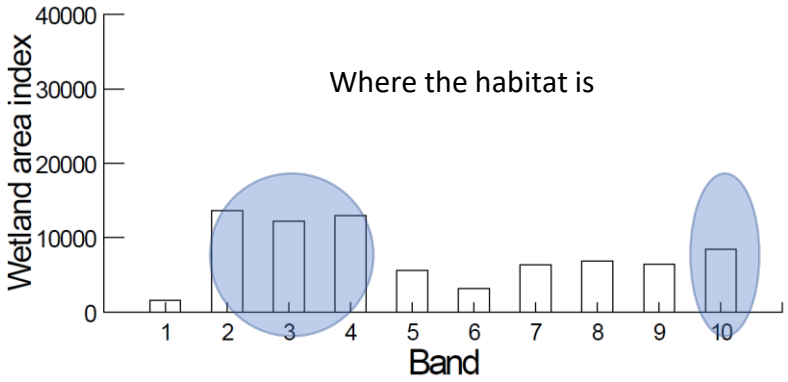
Game duck abundance, distribution and habitat - summary







Victorian harvest estimates 2019

Game Management Authority

2019 harvest estimates

Harvest statistics can provide information on the health and dynamics of game duck populations, including distribution, abundance and productivity.

- Due to continued dry conditions and low game duck abundance, the 2019 duck season was modified. There was a maximum of 24,925 Game Licence holders endorsed to hunt duck in 2019.
- Over the opening weekend, 42% of licence holders (10,493) hunted, 19% of the total seasonal harvest (45,676 ducks) was taken and an estimated 4.4 ducks were harvested per licence holder. For the whole of the season, 81,023 hunter days were recorded and each licence holder hunted an average of 3.3 days.
- The total seasonal harvest was estimated at 238,666 ducks and each licence holder took an average of 2.94 ducks per hunting day. An estimated 9.6 ducks were harvested per licence holder for the season. 55% (13,550) hunters were active throughout the season.
- 47% of hunting occurred on public land only and 46% on private land only. 6% of hunting occurred on both public and private land. 48% of ducks were harvested solely on private land and 44% on public land, with the remainder occurring on both.
- Total harvest was estimated to be greatest in the West Gippsland CMA, followed by Corangamite and North Central CMA.

The following table summarises this information

Game Management Authority

Source: Moloney, P.D. and Powell, Z. (2019) *Estimate of duck and Stubble Quail harvest in Victoria for 2019.*

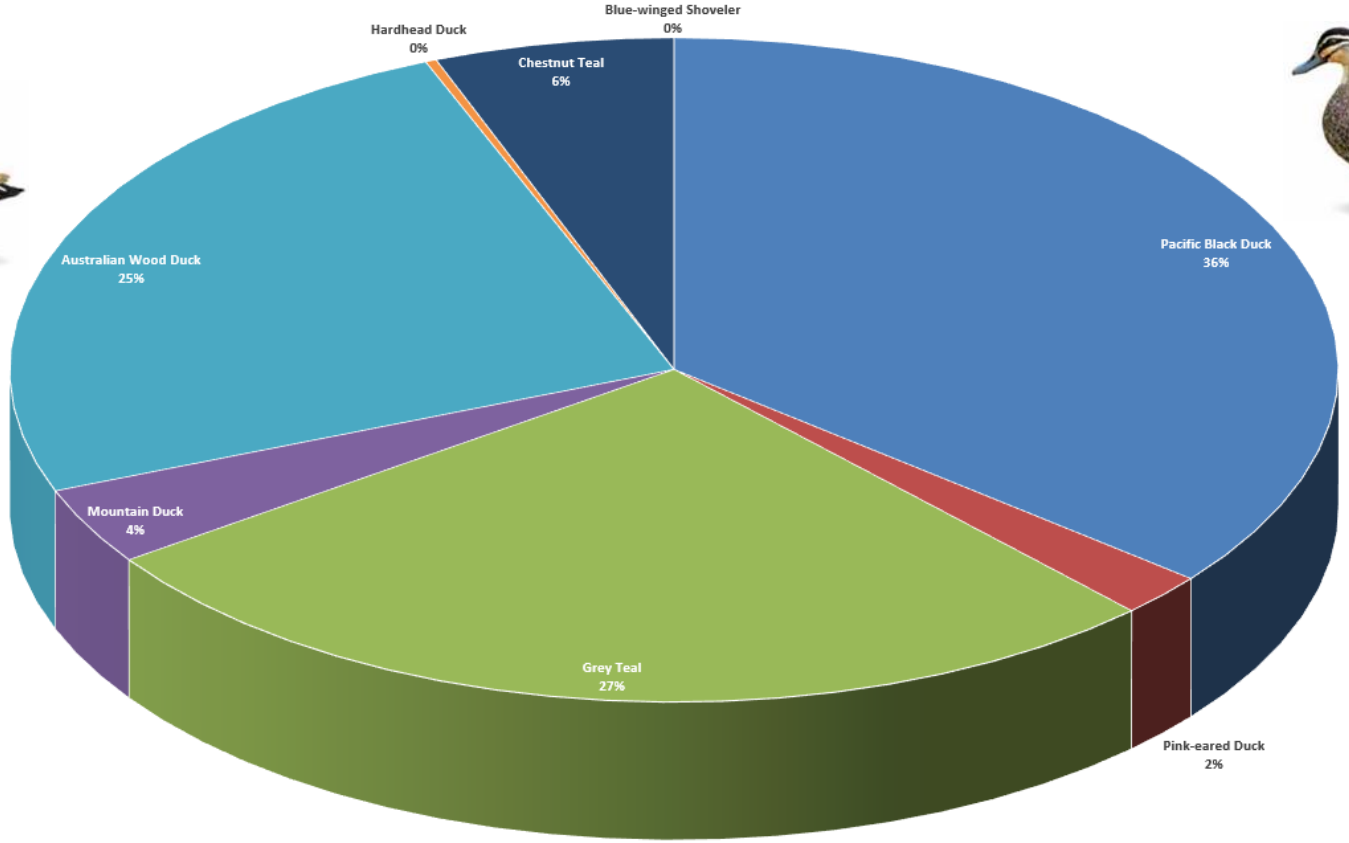
Long-term harvest estimates

Estimates	2009[1]	2010[2]	2011	2012	2013	2014	2015[3]	2016[4]	2017[5]	2018[6]	2019[7]	Average 2009-19
Licensed hunters	18,348	21,861	23,716	24,533	24,036	26,261	25,837	25,681	26,324	25,799	24,925	24,301
Total # hunter days	76,659	85,801	103,450	109,718	91,748	118,800	91,264	100,749	96,508	91,570	81,023	95,151
Total harvest	222,302	270,574	600,739	508,256	422,294	449,032	286,729	271,576	438,353	396,965	238,666	373,229
Average # days hunted in the season	4.0	4.0	4.5	4.6	3.7	4.6	3.6	3.9	3.8	3.6	3.3	3.97
Seasonal harvest per licence holder	11.1	12.5	26.0	21.2	17.2	17.3	11.4	10.5	17.4	15.7	9.62	15.46
Opening weekend bag per hunter	4.5	4.2	9.2	5.3	9.5	5.7	5.8	5.1	7.1	6.3	4.4	6.1
Average # ducks per day hunted	2.7	3.1	5.7	4.6	4.6	3.7	3.1	2.6	4.5	6.4	2.9	3.90

Harvest estimates are at 95% confidence intervals

Modified season arrangements
1. Two (2) birds per day with an additional three (3) Wood Duck. No Blue-winged Shoveler, Pink-eared Duck or Hardhead duck (49 day season)
2. Five (5) birds per day with an additional three (3) Wood Duck. No more than 1 Blue-winged Shoveler (72 day season)
3. Ten (10) birds per day which included a maximum of two Blue-winged Shoveler on opening day. Five (5) birds per day which includes a maximum of one Blue-winged Shoveler for remainder of season (80 day season)
4. Eight (8) birds on opening day. Four (4) birds per day for remainder of the season. No Blue-winged Shoveler hunted in 2016 (87 day season)
5. Ten (10) birds per day. No Blue-winged Shoveler hunted in 2017 (87 day season)
6. Ten (10) birds per day. No Blue-winged Shoveler hunted in 2018 (87 day season)
7. Four (4) birds per day on opening weekend. Five (5) birds per day for the remainder of the season. No Blue-winged Shoveler hunted in 2019 (65 day season).

Estimates of harvest per game duck species



Game Management Authority

Grey Teal, Wood Duck and Black Duck consistently make up the majority of the harvest each year

Game Management Authority

Summary

- With the exception of 2016, much of eastern Australia has received below average rainfall since 2013. Almost all of NSW and the majority of QLD is currently drought affected.

- A key waterfowl production area, the Murray Darling Basin, is experiencing its worst 2-3 year drought in over 120 years.

- The Eyre Basin experienced a significant flood event in early-2019, creating significant short-term habitat. A single breeding event was triggered.

- The wetland area index is the lowest recorded in 37 years, reflecting the extremely dry conditions.

- Waterbird habitat is largely restricted to central QLD, southern NSW/northern Victoria, south-western Victoria and south-eastern South Australia. There is very little habitat available in the Murray-Darling Basin. Habitat created in the Eyre Basin as a result of flooding in QLD earlier this year has largely dried.

Game Management Authority

Summary

- Game duck abundance increased slightly from last year but is well below average. Birds are confined to north/central QLD, southern NSW/northern Victoria and south-western Victoria and south-eastern South Australia.
- Given the absence of habitat in central eastern Australia, there is limited opportunity for large-scale movement between north and south.
- Excluding 2016, there has been very little large-scale waterbird breeding since 2013 and the existing populations constitute core breeding stock.
- A positive IOD, negative SAM and delay to the onset of the monsoon are contributing to the prediction for a hotter and drier summer for eastern Australia. Should this occur, waterbird habitat availability will continue to decline.
- Waterbird abundance, breeding and habitat availability are showing long-term declines.

Game Management Authority

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- The Long Paddock- www.longpaddock.qld.gov.au

Game Management Authority

Aerial Survey of Wetland Birds in Eastern Australia - October 2019 Annual Summary Report

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Office of Environment & Heritage NSW [2]

Game Management Authority

Government of South Australia
Department for Environment and Water

VICTORIA State Government | Environment, Land, Water and Planning

Queensland Government

2019 Aerial Survey of Wetland Birds in Eastern Australia Summary

- The year 2019 has been exceptionally dry with significant rainfall deficiencies continuing to affect most of Australia. This years spring was the driest on record across Australia and the year-to-date rainfall has been the lowest on record for southern Australia. The Murray–Darling Basin has experienced its worst 2-3 year drought period in over 120 years.

- Almost all of NSW is drought affected (42%) or in drought (57.7%), with a significant portion of the state (14%) experiencing intense drought (DPI 2019). More than 66% of Queensland is drought affected or in drought, across most of the Lake Eyre, Bulloo-Bancannia and Murray Darling river basins (Qld Dept. of Agriculture & Fisheries 2019). Rainfall was below to very much below average with most of eastern South Australia drought affected (Primary Industries and Regions SA 2019), and northern Victoria where drought conditions have intensified.

- As well as being extremely dry, 2019 has also been very warm. Australian maximum temperatures for the year to date have been the second warmest on record, second only to 2014. New South Wales has experienced its warmest January–November period on record, while Victoria had its hottest day on record (BOM 2019). Queensland temperatures were also well above average with the third warmest year on record (BOM 2019).

- All major indices for waterbirds (total abundance, breeding index, number of species breeding and wetland area index) continue show significant declines over time; If 1983 & 84 peak years are omitted then 3 of the 4 major indices show significant decline (OLS regression at p=0.05; variables 4th root or log transformed where appropriate; Fig. 1; Table 1). Long term trends are more informative for predicting population status than year to year fluctuations.

- Total waterbird abundance (n=208,364) increased marginally from 2018 but remains well below average: the 13th lowest in 37 years. Waterbirds were most abundant in bands 2 and 10 (Figs 1, 2 & 5).

- Breeding species' richness and breeding abundance, increased compared to the previous year; however, breeding was heavily concentrated at one site – Rhyll Swamp in Band 1 (Fig. 6) and comprised mostly of Straw-necked ibis.

- Species functional response groups (feeding guilds) all showed significant long term declines (Fig. 3; Table 2). Long term changes were also observed in decadal averages of total abundance, wetland area index, breeding index and breeding species richness (Fig. 4).

- Wetland area index was the lowest since surveys began. Some rivers and wetlands in the northern Lake Eyre Basin including the Diamantina and Georgina rivers, held small amounts of water and supported low numbers of waterbirds. Lakes Torquinnie and Mumbleberry held water and supported moderate to high numbers of waterbirds. Lake Galilee was shallow and drying and supported the largest concentration with more than 43,000 waterbirds (Fig. 5).

- The Macquarie Marshes were very dry with very low numbers of waterbirds and no breeding. The Lowbidgee wetlands had little water, but with some low environmental flows provided by the NSW Government and Commonwealth managed environmental water, but were drier than in 2018; they supported low numbers of waterbirds with no breeding recorded. Most of the wetlands in the Menindee Lakes system were dry except the small Copi Hollow and a small amount of water remaining in Lake Wetherell. Overall, there were few waterbirds and no breeding activity. This was the driest that the system has been in 37 years. The Tallywalka lakes system was also dry (Fig. 7).

2019 Aerial Survey of Wetland Birds in Eastern Australia Summary (continued)

- Waterbirds were concentrated on a small proportion of wetlands and less widely dispersed than in the previous year; 11 wetlands supported more than 5,000 waterbirds representing 50% of the total abundance – none of these occurred in the Murray Darling Basin (Fig. 5). These areas were distributed across bands 7-10 and 2 and generally supported high species diversity (Figs 2 & 7). More than 52% of surveyed wetlands supported no waterbirds (includes wetlands that were dry).

- Total breeding index (nests + broods) of 1,987 (all species combined) increased from the previous year but remains well below the long term average (Fig. 1). Breeding species' richness was low, with only 6 species recorded breeding: Straw-necked Ibis (1,800) and Black swans (133) comprised 97% of the total (Fig. 6).

- Most game species abundances were well below long term averages, in some cases by an order of magnitude; Six out of eight species continue to show significant long term declines (Table 3). Australian wood duck were an exception with total abundance slightly above the long term average (Fig. 19).

- Waterbird indices across river basins generally reflected declines in available of habitat and drought intensity; 2019 abundance and wetland area declined sharply in the Murray-Darling Basin compared to the previous year. Conversely abundance in the Lake Eyre basin increased by an order of magnitude after flooding earlier in the year that partially filled Lake Eyre (Fig. 8).

- Across Eastern Australia overall abundance, breeding index and breeding species richness are positively related to available habitat (wetland area index). Conversely, declines in wetland area are likely to result in declines in waterbird abundance, breeding and breeding species richness (Fig. 9).

- Selected species distribution and abundances are shown in figures 10-19; Freckled duck and Plumed whistling-duck are included for comparison with game species. Map plots in these figures show 2019 distribution and trend plots show changes in abundance over time (1983-2019). Horizontal lines in trend plots indicates the long term average.

This survey is run by the Centre for Ecosystem Science at UNSW Sydney and funded by the NSW Department of Planning Industry & Environment, with additional funding provided by the South Australian Department of Environment, Water and Natural Resources, the Queensland Department of Environment and Heritage Protection , the Victorian Department of Environment, Land, Water & Planning and the Victorian Game Management Authority

We thank Sharon Ryall for logistics and Shannon Dundas, Paul Wainwright, Peter Ewin and Andrea White for acting as expert observers during the survey; thanks also to Timothy Dugan of NSW National Parks and Wildlife, for piloting the aircraft and Gary Cranitch for photography. We also thank Bradley Clarke-Wood, Victoria Inman, Roxane Francis, Matt Davis, Claire Sives and Daniel Simpson for support, data management, graphics and quality assurance. Thanks are also due to our trainee observers: Lucy Carlile, Sam Hardy, Jody Gates, Amelia Selles, Heath Dunstan, Jason Higham, Karl Hillyard, Simon Toop and Jody O'Connor. Cover Picture: John Porter – Paroo Overflow Lakes.

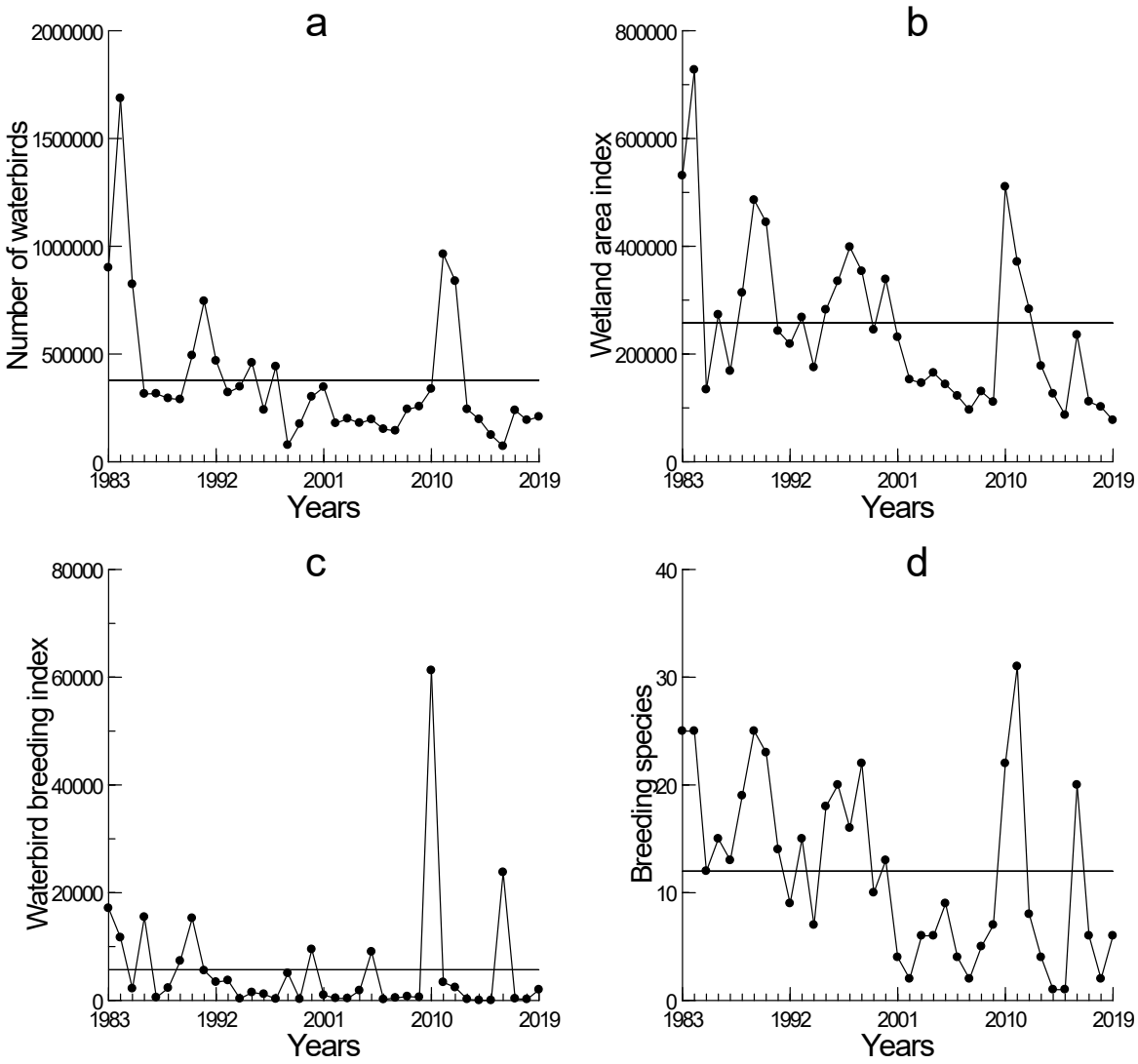

Figure 1. Changes over time in a) total abundance, b) wetland area, c) breeding and d) number of breeding species in the Eastern Australian Waterbird Survey (1983-2019); horizontal lines show long-term averages.

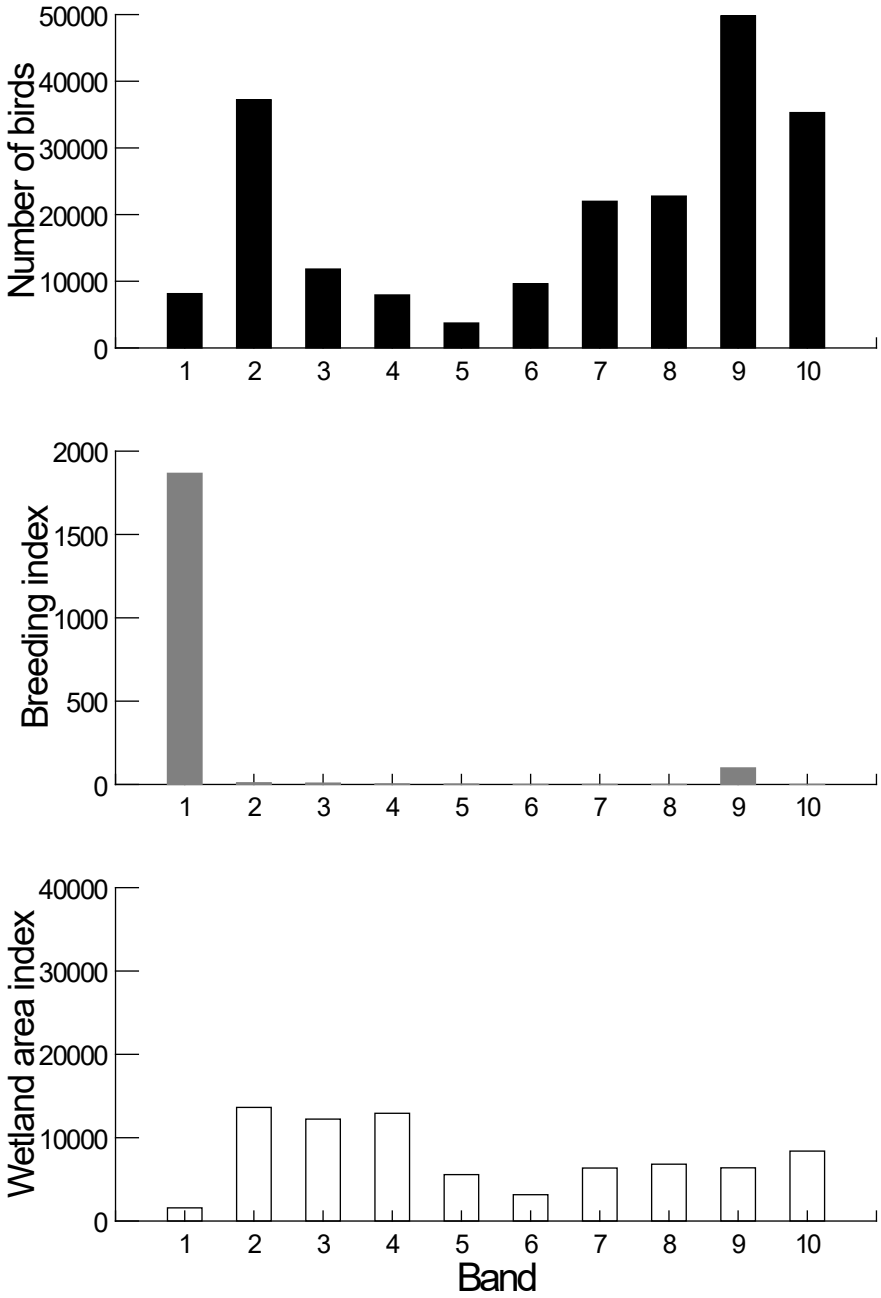

Figure 2. Waterbird abundance, breeding index and wetland area index in 10 survey bands of the Eastern Australian Waterbird Survey in 2019.

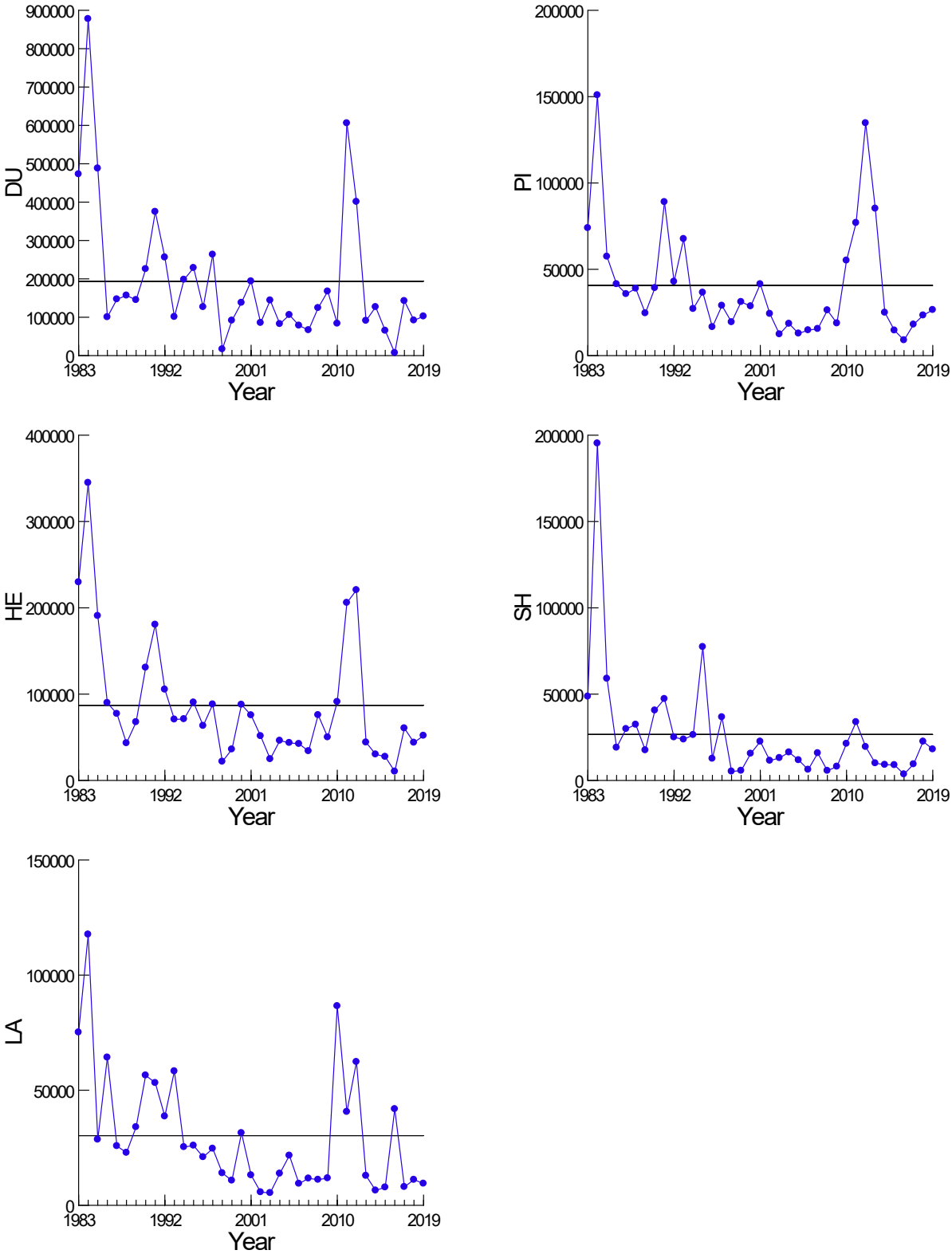

Figure 3. Changes in abundances of waterbird functional response groups (Du=ducks; Pi=piscivores; He=herbivores; Sh=shorebirds; La=large wading birds) over time in the Eastern Australian Waterbird Survey (1983-2019).

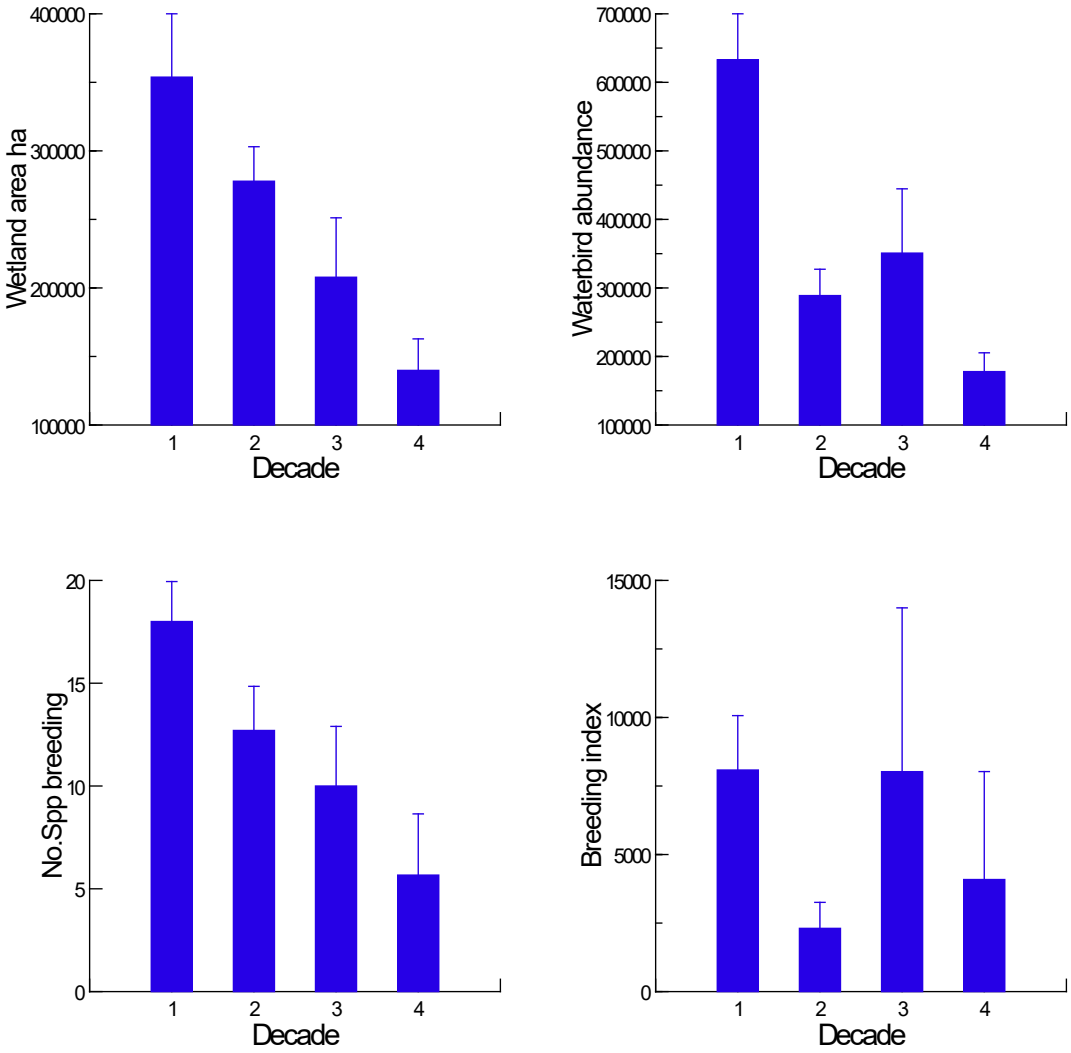

Figure 4. Decadal changes in indices including total abundance, wetland area, number of breeding species and breeding in the Eastern Australian Waterbird Survey (1983-2019).

Table 1. Trends in total waterbird abundance, wetland area index, breeding index and breeding species richness in the Eastern Australian Waterbird Survey (1983-2019).

Variable	1983-2019 All years		1985-2019 Omit 83-84	
	regression		regression	
Total waterbird abundance	decline	r^2=0.24, p=0.002	decline	r^2=0.13, p=0.034
Wetland area index	decline	r^2=0.24, p=0.002	decline	r^2=0.14, p=0.030
Breeding index	decline	r^2=0.12, p=0.041	no trend	r^2=0.06, p=0.158
Breeding species richness	decline	r^2=0.25, p=0.002	decline	r^2=0.16, p=0.017

Table 2. Trends in abundances of functional response (Fx) groups, in the Eastern Australian Waterbird Survey (1983-2019).

Fx group		Trend	Regression
Du	Ducks	decline	r^2=0.26, p=0.002
He	Herbivores	decline	r^2=0.29, p=0.001
La	Large wading birds	decline	r^2=0.30, p=0.001
Pi	Piscivores	decline	r^2=0.19, p=0.007
Sh	Shorebirds	decline	r^2=0.46, p<0.001

Table 3. Trends in abundances of game species from the Eastern Australian Waterbird Survey (1983-2019).

Species	Trend	Regression
Black duck	decline	r^2=0.32, p<0.001
Australasian shoveler	decline	r^2=0.39, p<0.001
Chestnut teal	decline	r^2=0.12, p=0.036
Grey teal	decline	r^2=0.19, p=0.006
Hardhead	no trend	r^2=0.03, p=0.326
Mountain duck	decline	r^2=0.42, p<0.001
Pink-eared duck	no trend	r^2=0.06, p=0.153
Australian Wood duck	decline	r^2=0.24, p=0.003

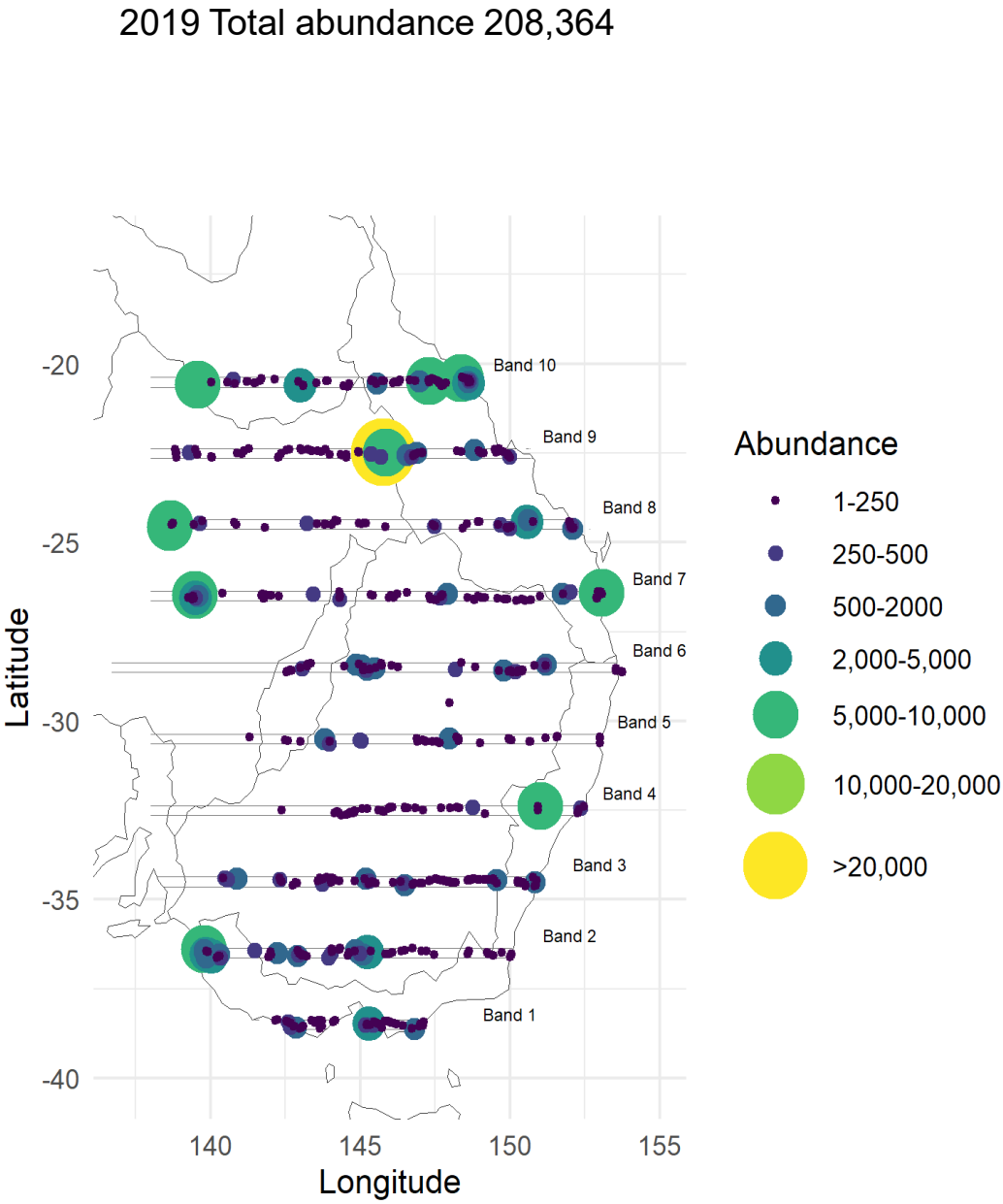

Figure 5. Distribution and abundance of waterbirds in the 2019 Eastern Australian Waterbird Survey. Dry wetlands and those with zero waterbirds not plotted.

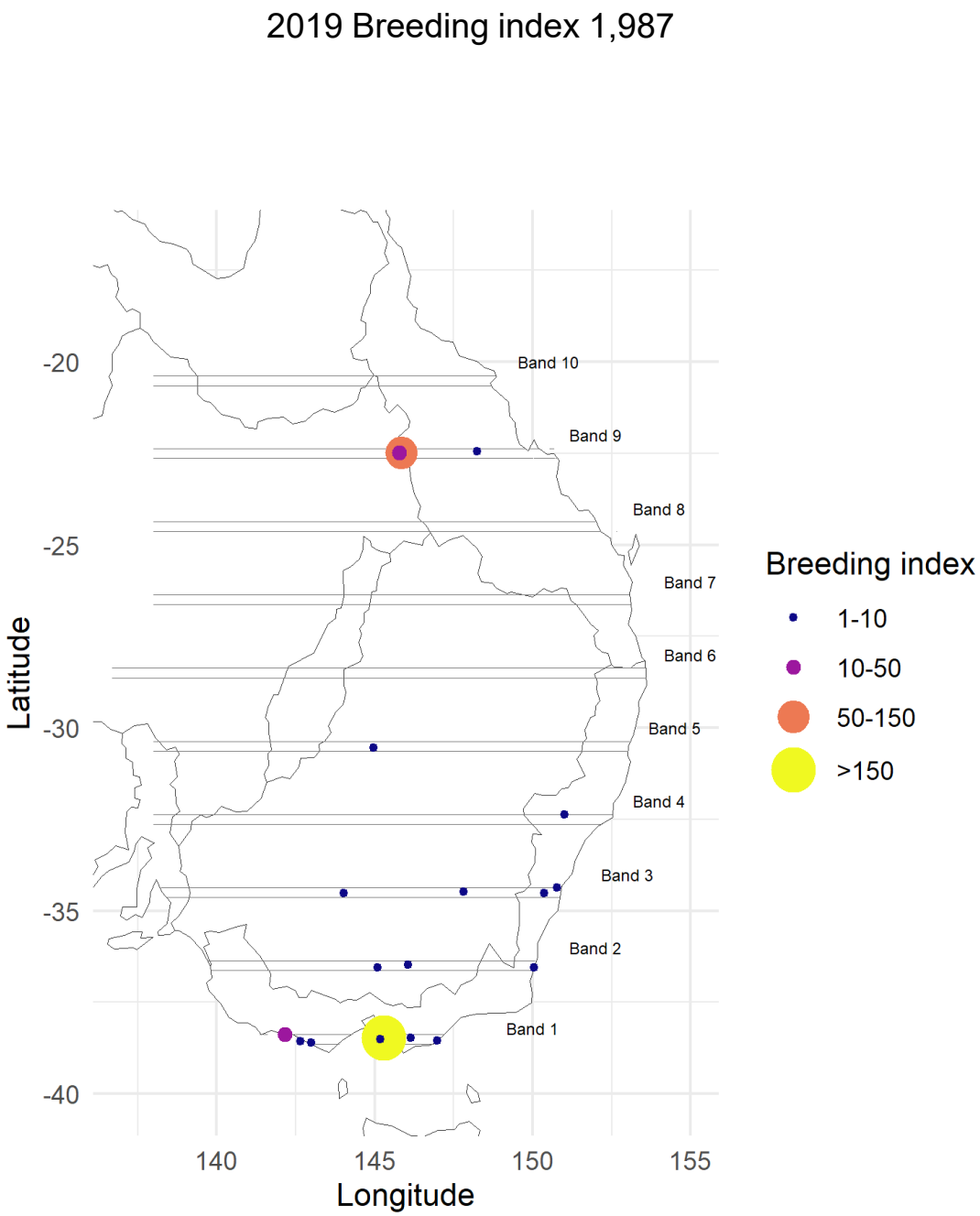

Figure 6. Distribution of waterbird breeding in the 2019 Eastern Australian Waterbird Survey. Only wetlands with breeding recorded are plotted.

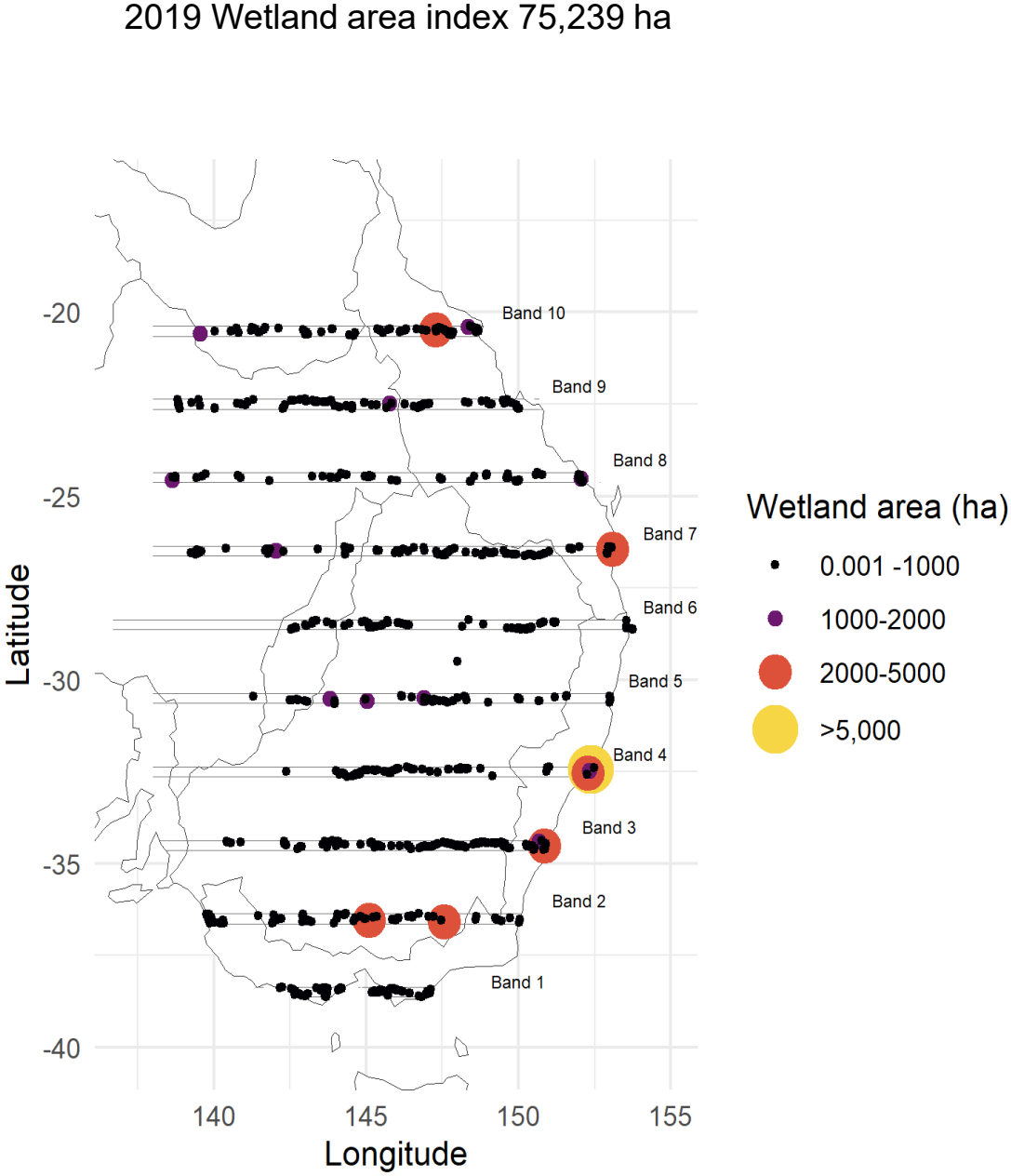

Figure 7. Distribution of wetland area in the 2019 Eastern Australian Waterbird Survey. All surveyed wetlands with surface water present are plotted; dry wetlands not plotted.

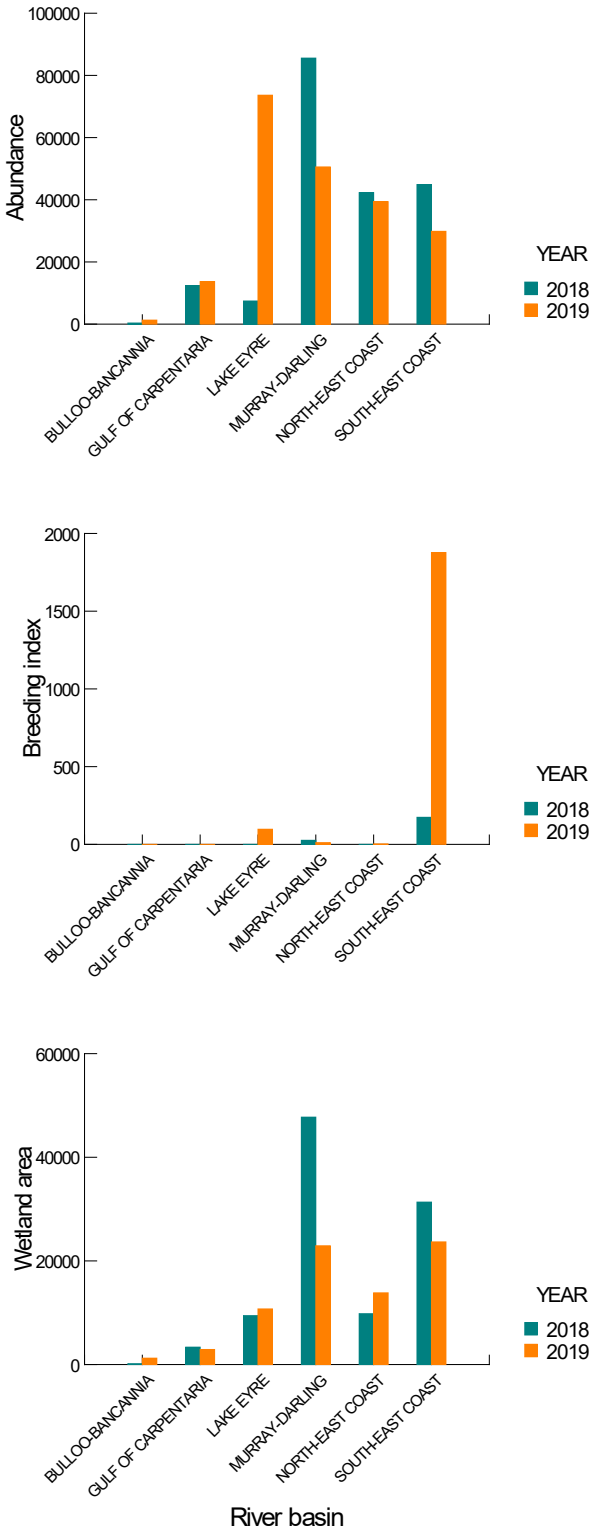

Figure 8. Comparison of waterbird abundance, breeding index and wetland area in major river basins in 2018 to 2019.

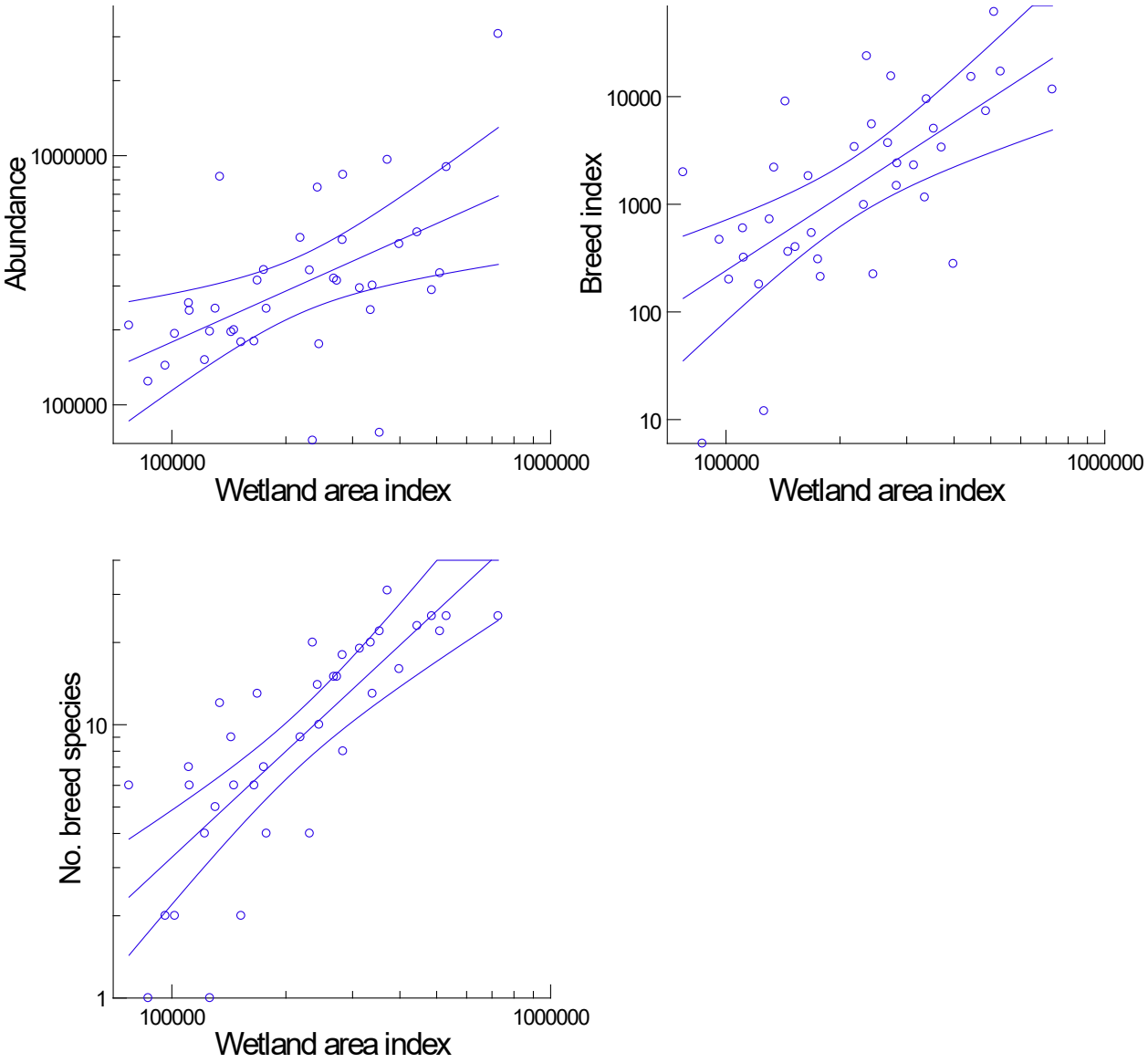

Figure 9. Interactions – mean abundance, breeding and number of breeding species with wetland area index (ha) for the Eastern Australian Waterbird Survey (1983-2019).

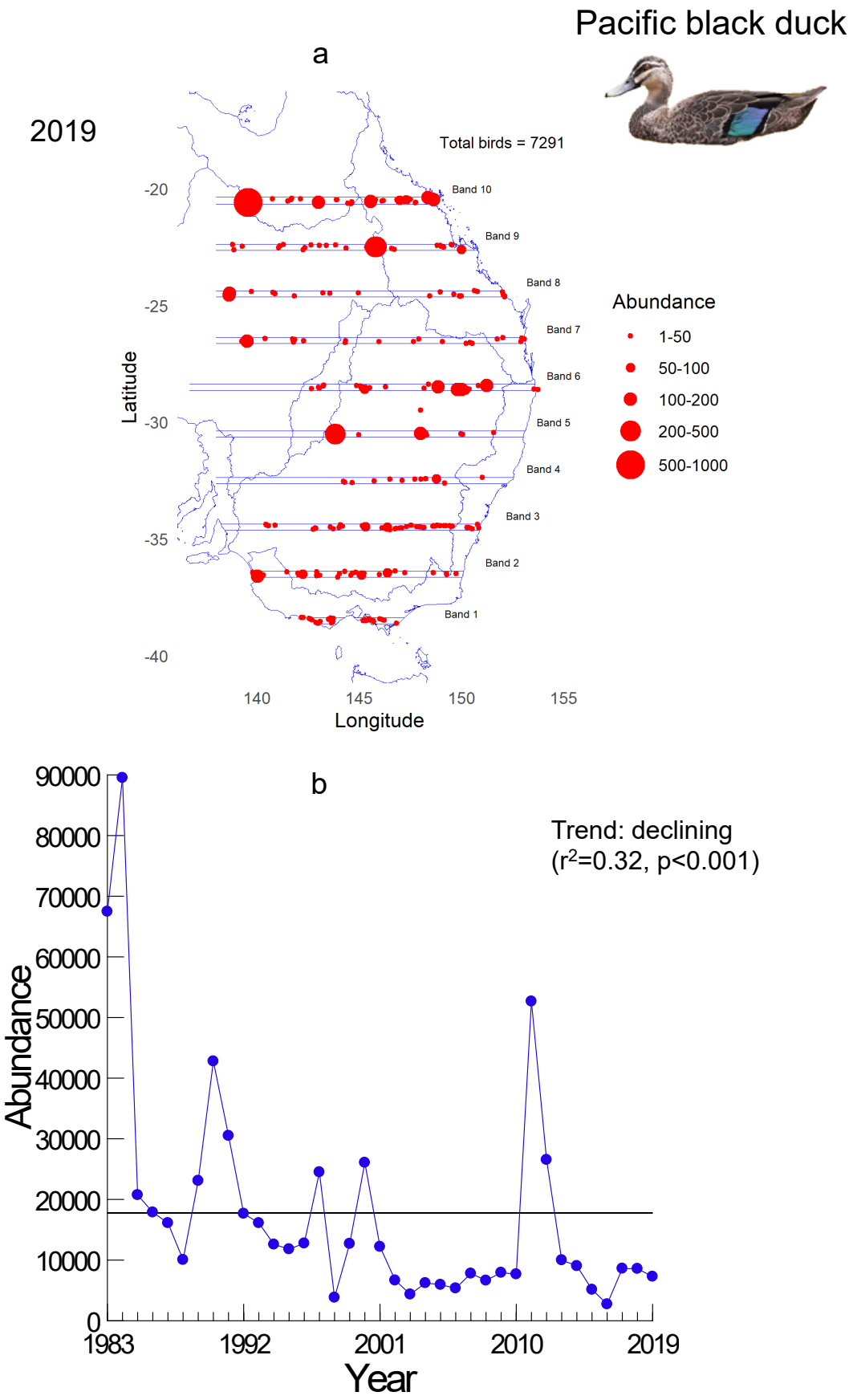

Figure 10. a. Distribution and abundance of Pacific black duck during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

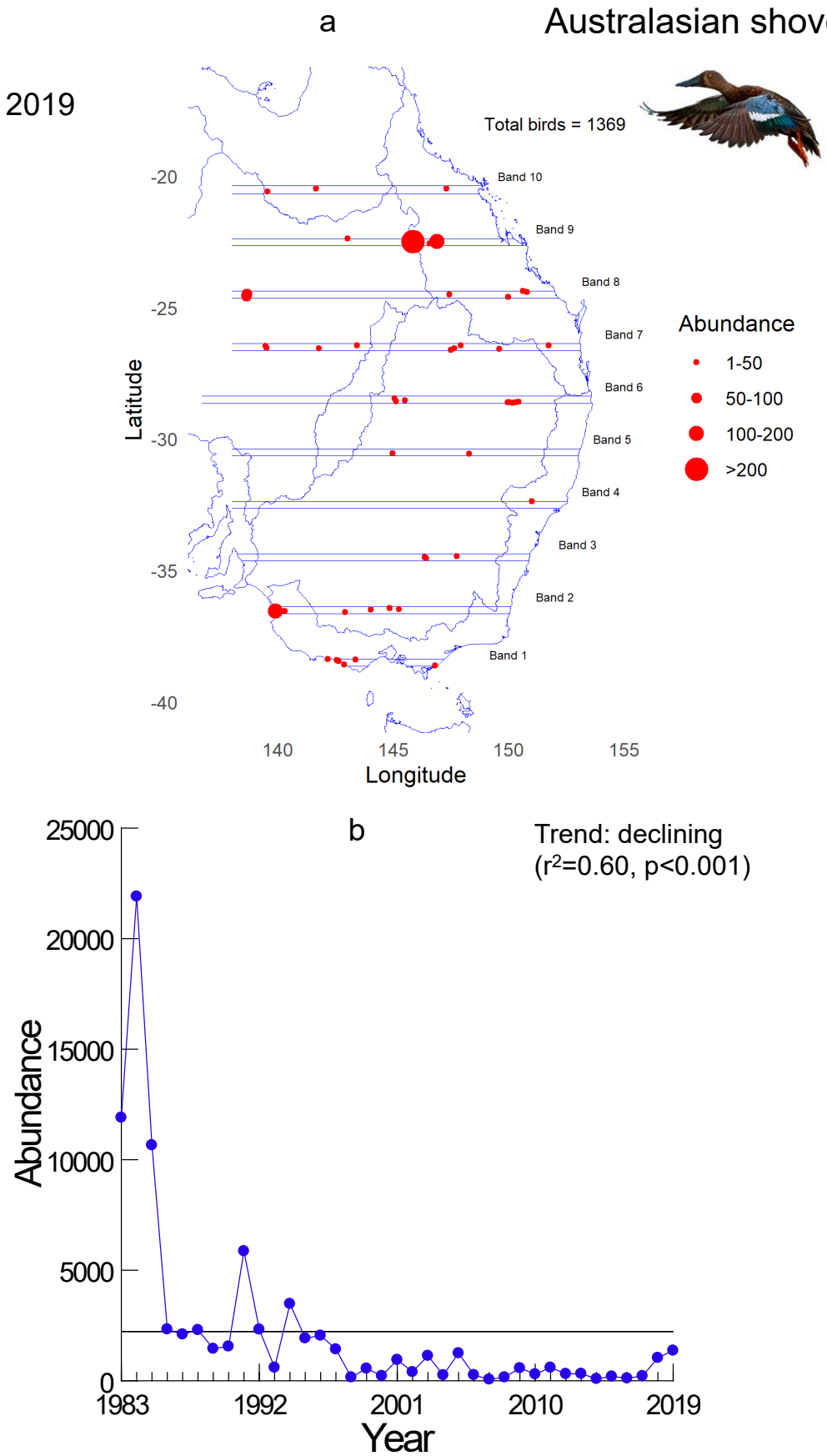

Figure 11. a. Distribution and abundance of Australasian shoveler during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

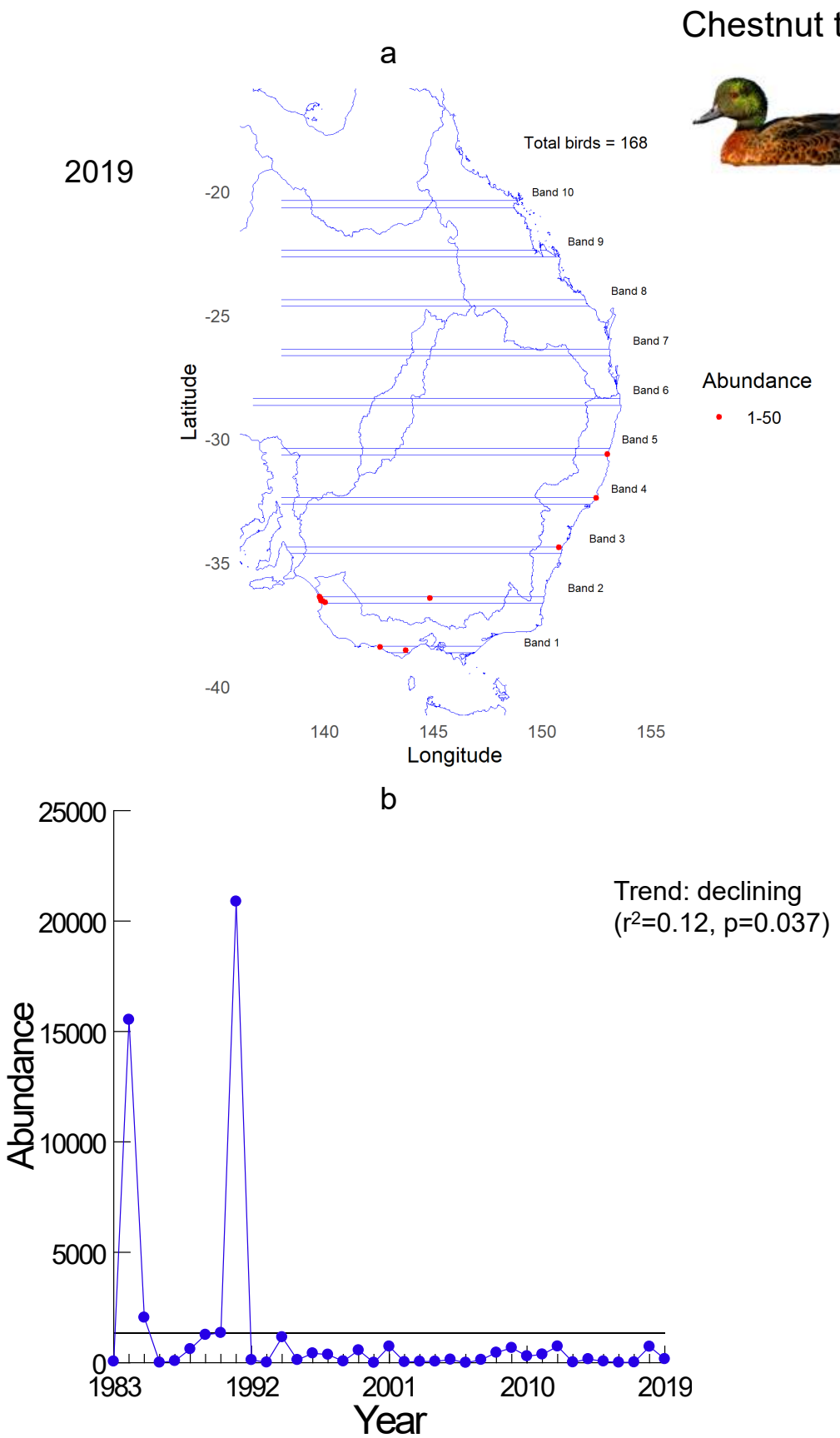

Figure 12. a. Distribution and abundance of Chestnut teal during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

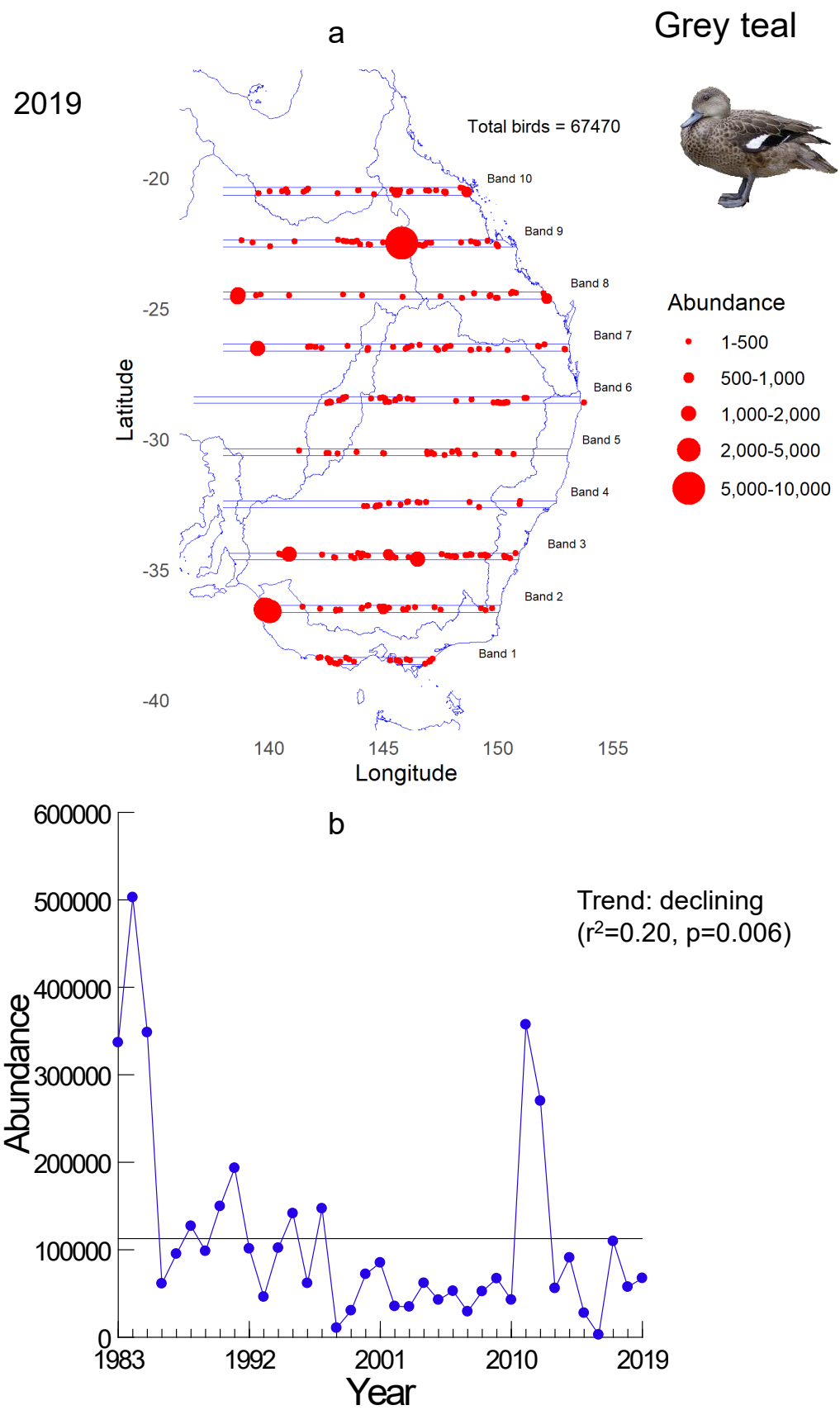

Figure 13. a. Distribution and abundance of Grey teal during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

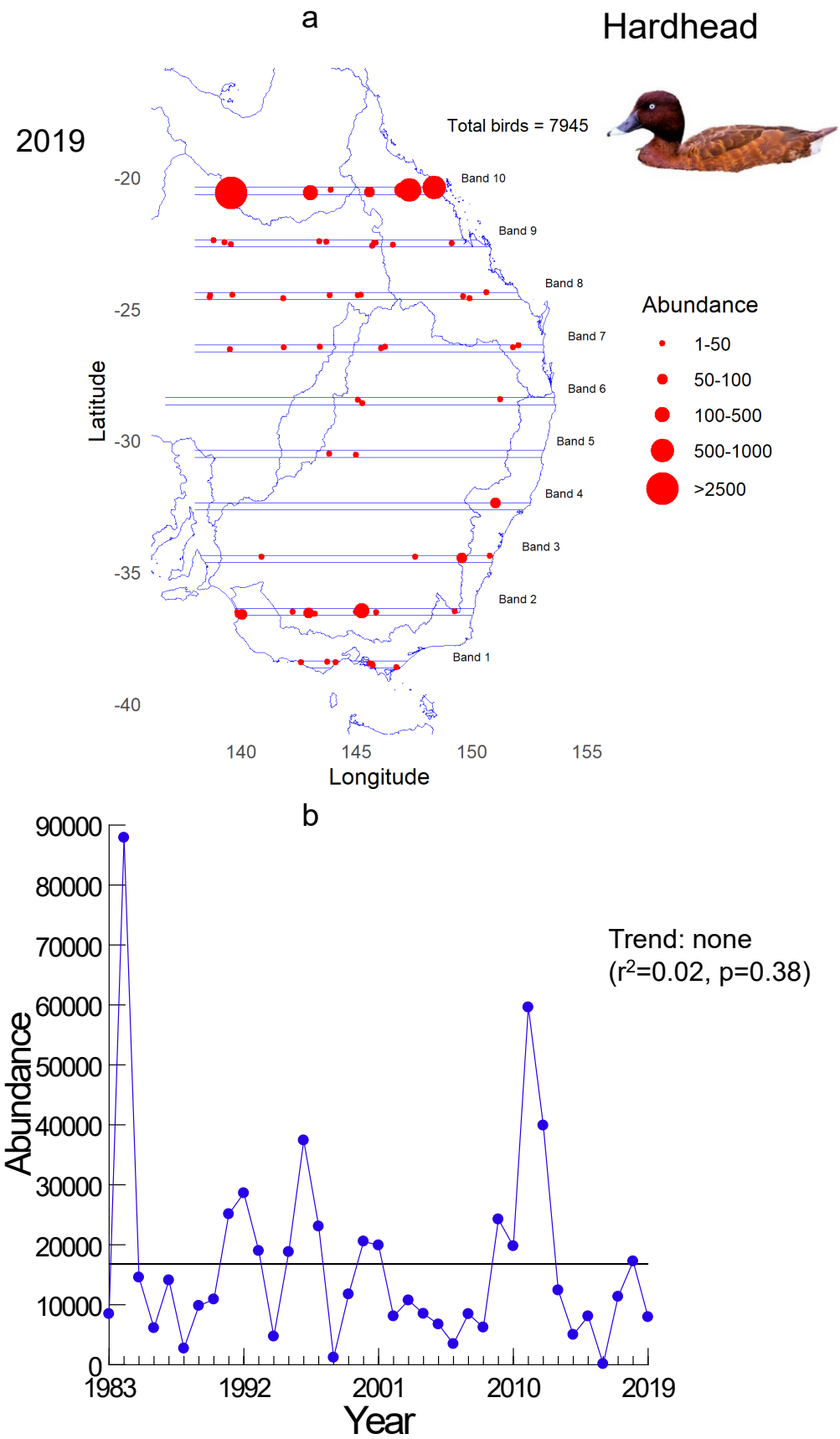

Figure 14. a. Distribution and abundance of Hardhead during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

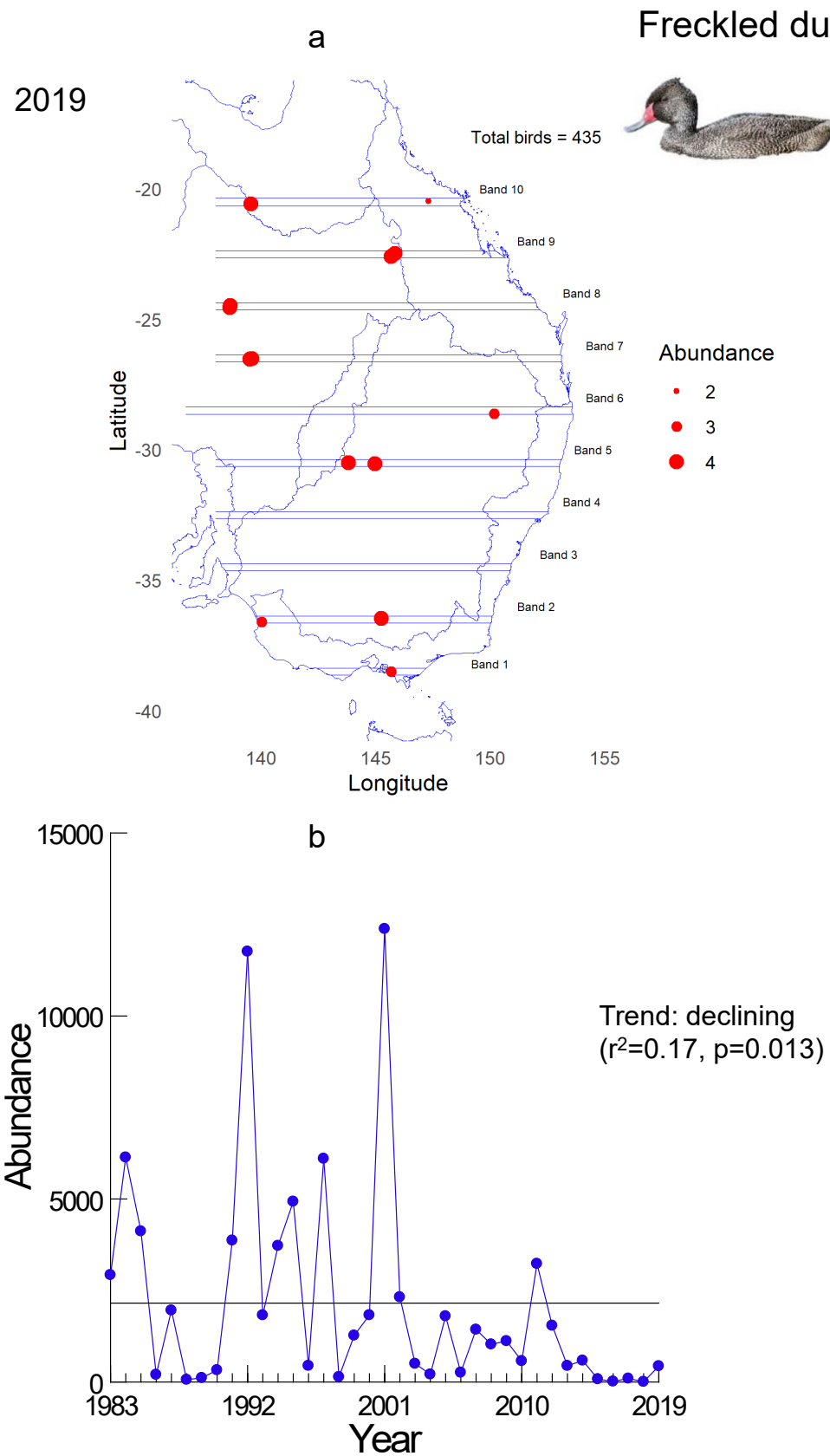

Figure 15. a. Distribution and abundance of Freckled duck during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

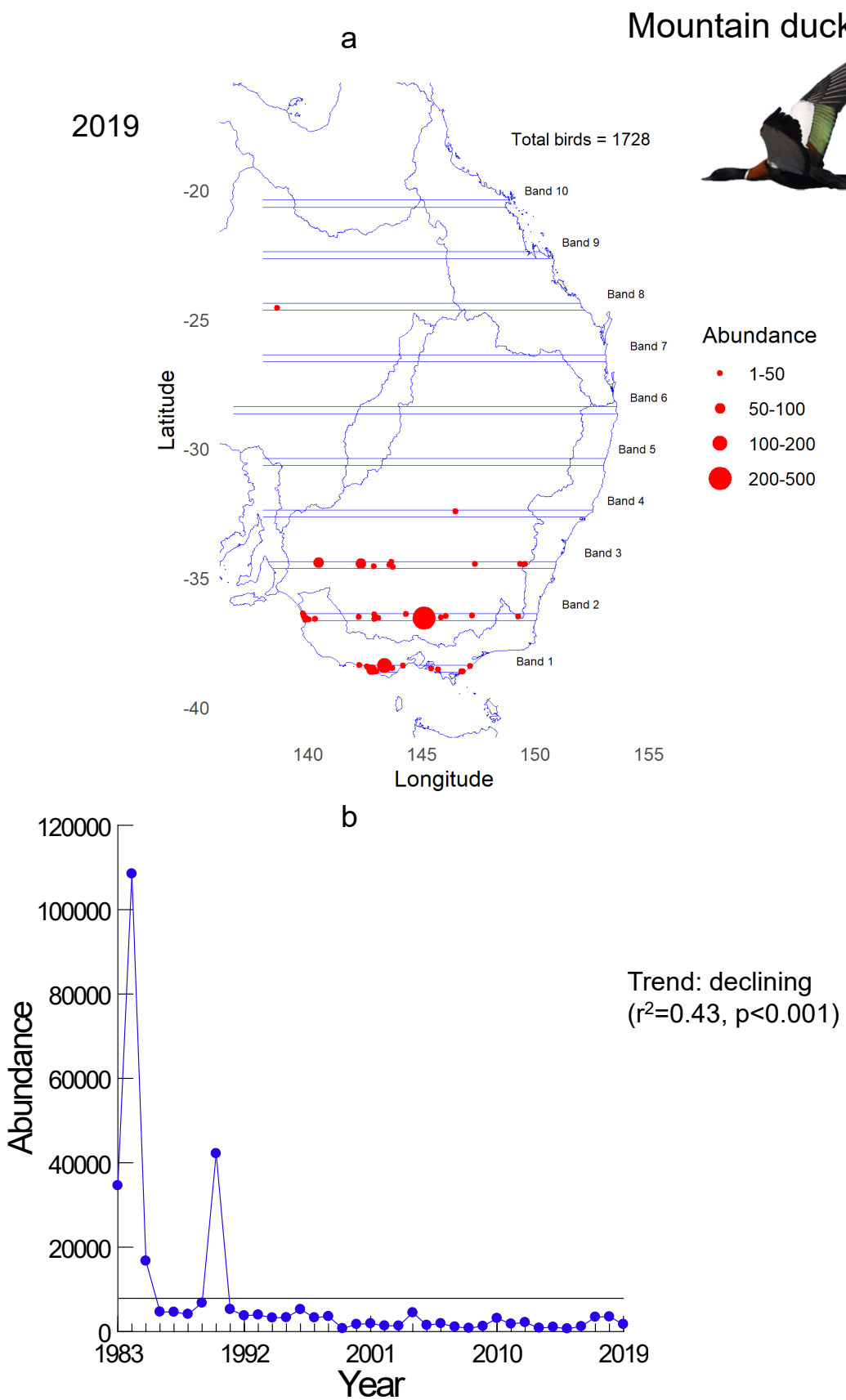

Figure 16. a. Distribution and abundance of Mountain duck during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

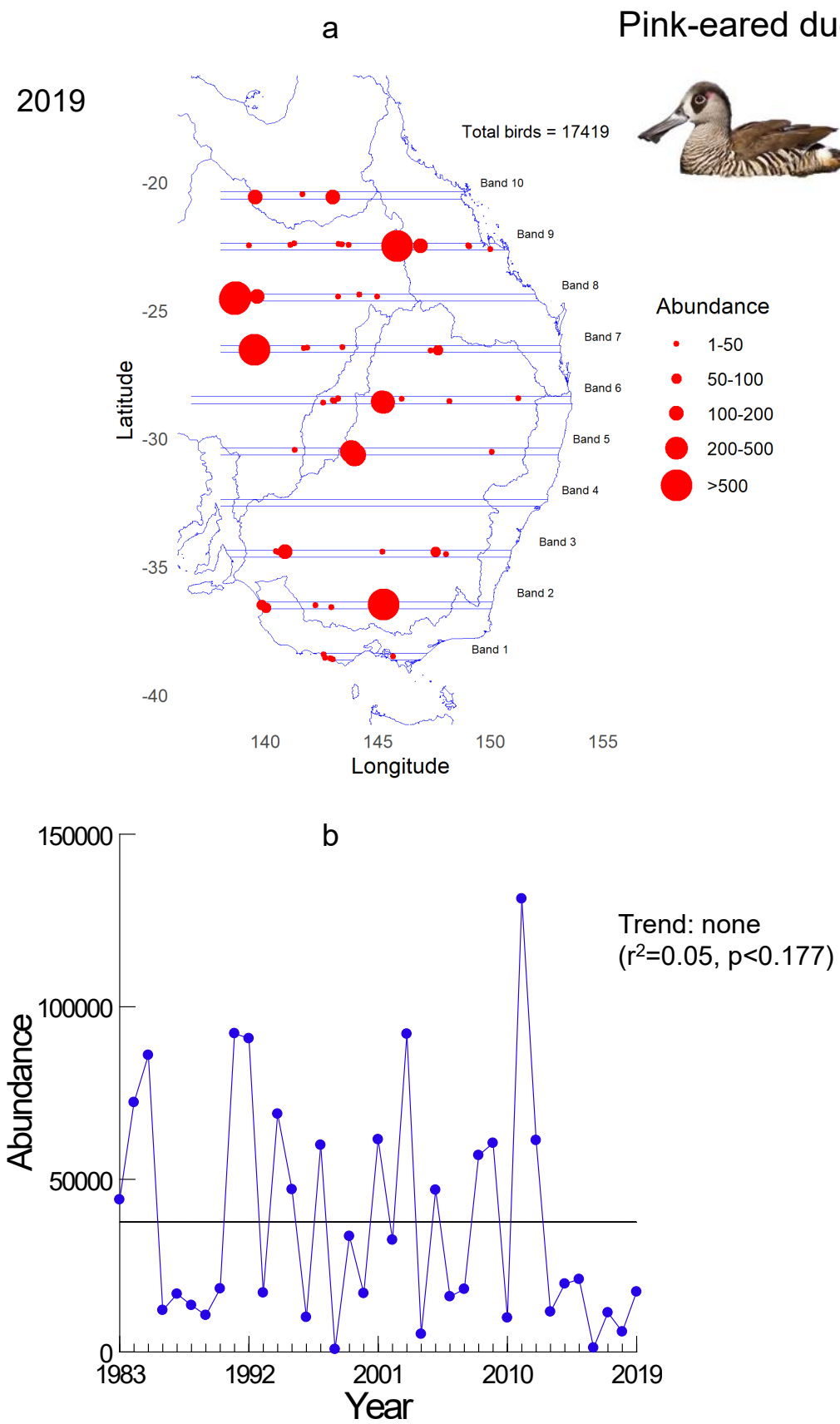

Figure 17. a. Distribution and abundance of Pink-eared duck during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

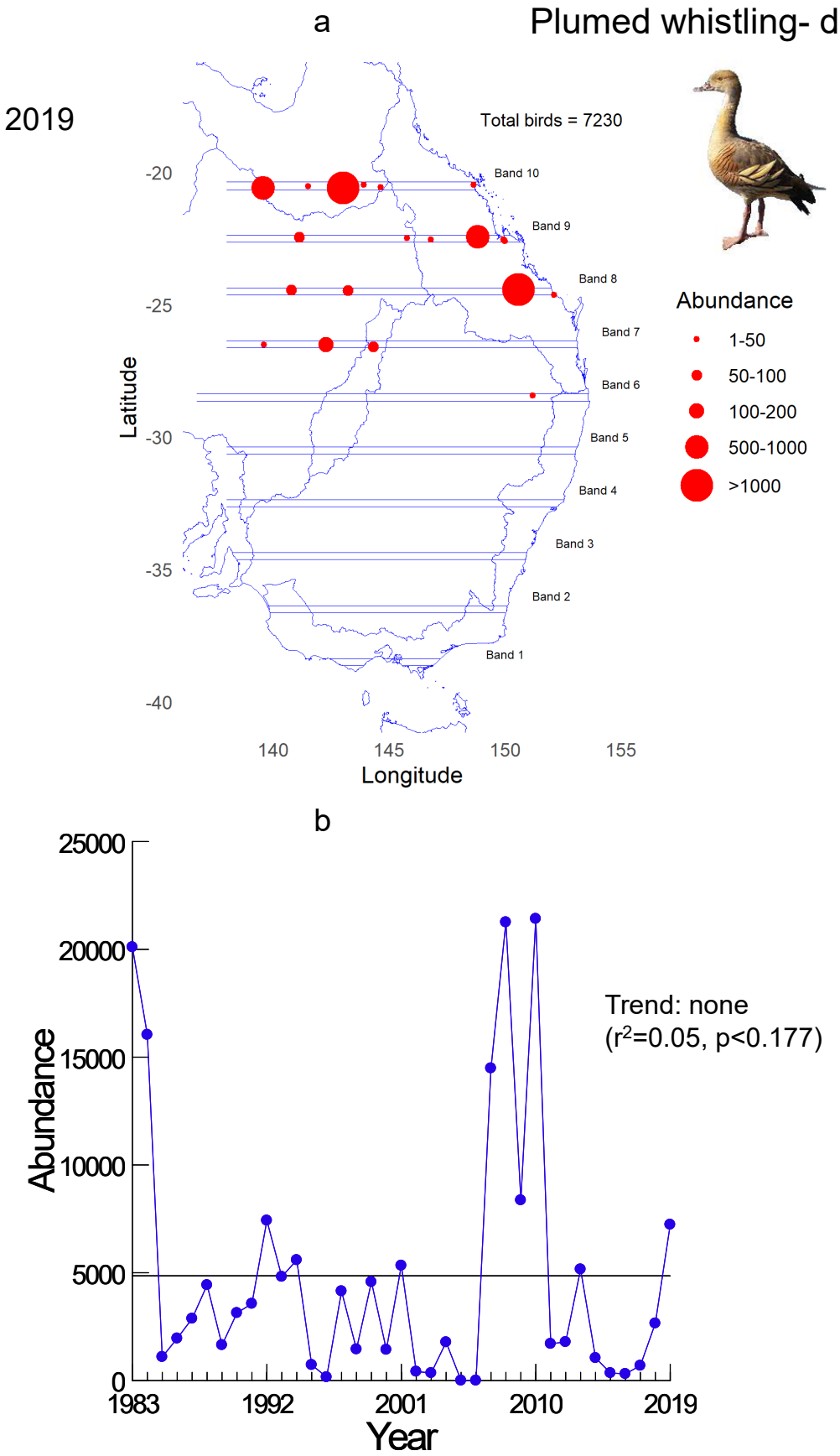

Figure 18. a. Distribution and abundance of Plumed whistling-duck during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

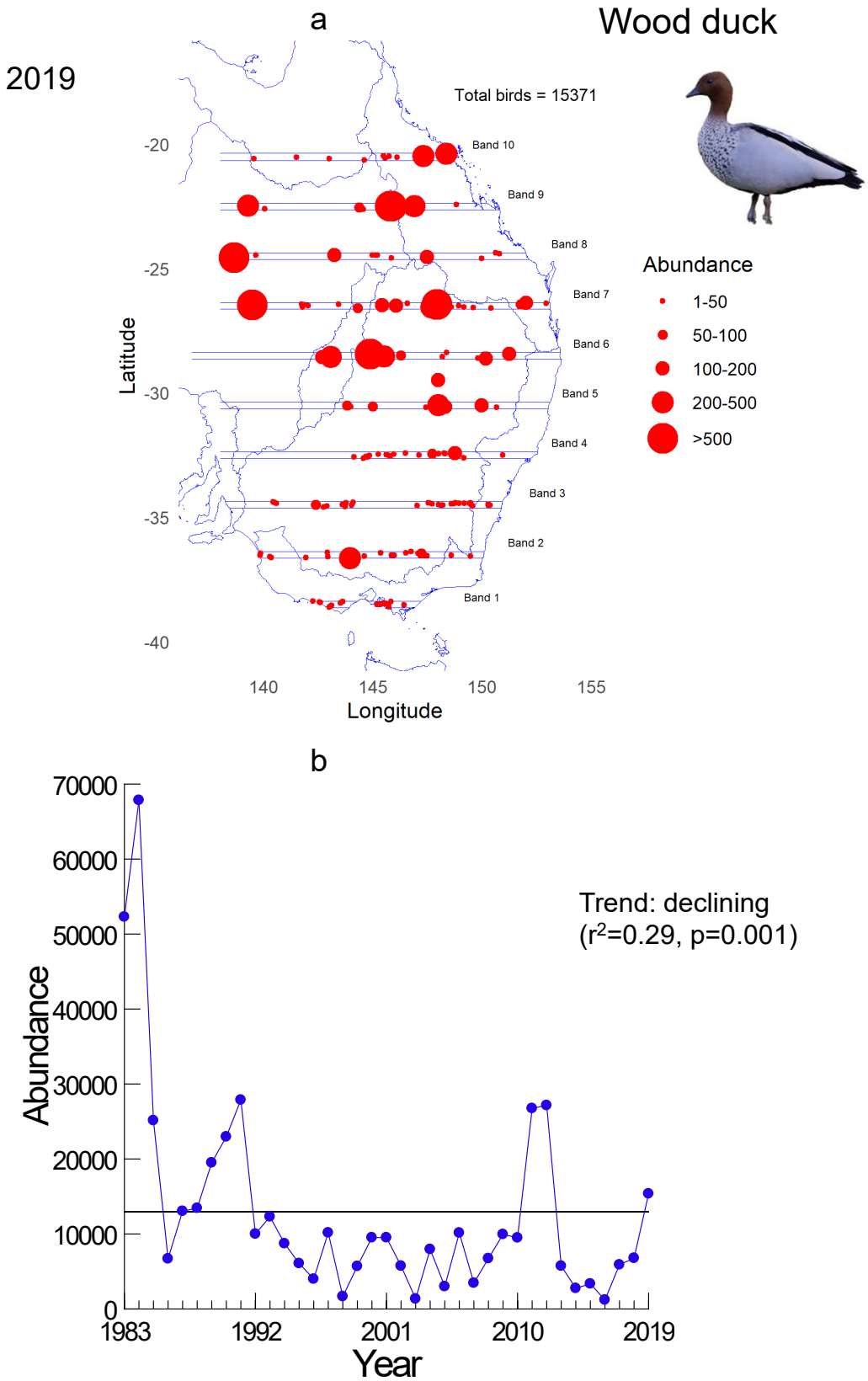

Figure 19. a. Distribution and abundance of Australian wood duck during the 2019 Eastern Australian Waterbird Survey. b. Changes in abundance (1983-2019). Horizontal line indicates long term average.

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Attachment 3

Summary of stakeholder views on the arrangements for the 2020 duck season

Organisation	Recommendation	Comments
Field and Game Australia and Sporting Shooters Association of Australia Joint submission	**MODIFIED SEASON** **Season dates** Delay season start by 2 weeks. Commence 4 April – close 8 June 2020 (66 days) **Bag limit** Six (6) birds per day **Other** Delay opening weekend start times to 8am on Saturday and 7am on Sunday (AEST) (due to daylight savings)	Field and Game Australia (FGA) and Sporting Shooters' Association of Australia (SSAA) provided a joint submission and recommended a modified duck season, commencing on 4 April and closing on 8 June (66 days) They also recommended later start times of 8am on the opening Saturday and 7am on the opening Sunday (which falls back one hour due to the end of daylight savings). The recommended daily bag limit was 6 birds, with no mention of any species-specific restrictions (e.g. Blue-winged Shoveler). FGA and SSAA also recommended the implementation of several Sustainable Hunting Action Plan actions, including the adoption of adaptive harvest management and greater investment in gamebird research. FGA and SSAA believe that there is sufficient habitat and refuge available for game ducks to sustain a season, such as the dams, natural wetlands, channels, water treatment ponds and estuaries. FGA and SSAA also highlighted the flooding event in the Eyre Basin which filled many important Eyre Basin waterways and partially filled Lake Eyre.
Shooting Sports Council of Victoria (SSCV)	**MODIFIED SEASON** **Season dates** Delay season start by four weeks. Commence 18 April – 8 June 2020 (52 days) **Bag limit** Four (4) birds per day over opening weekend, five (5) birds rest of season **Other** Suggested an increase for the daily bag limit for Wood Duck, but no number specified	The Shooting Sports Council of Victoria recommended a reduced season in light of the reduced habitat and game duck abundance. It recommended a four-week shorter season, commencing on 18 April until the usual close of the second Monday in June, noting that the proposed start date avoids the Easter holidays. It also recommended a reduced daily bag limit to 4 birds over the opening weekend and 5 birds for the remainder of the season. It also suggested that consideration be given to adding extra Wood Duck to the daily bag, but did not recommend a number.
BirdLife Australia	**CANCEL** the 2020 duck season	BirdLife Australia recommends that the 2020 duck season be cancelled due to poor environmental conditions, low game duck abundance and continued declines in populations, hotter and drier climatic outlooks that will put further

		pressure on waterbird populations, and reduced breeding. BirdLife Australia advocates for a precautionary approach given the evidence of long-term declines and multiple pressures on game duck species, including hunting and climate change.
Animals Australia	**CANCEL** the 2020 duck season	Animals Australia recommended that the 2020 duck season should be cancelled given the poor environment conditions, reduction in habitat availability, absence of significant habitat in central eastern Australia restricting large-scale movement, reduction in game duck abundance well below the mean and reduced from 2018 levels which were already low, forecast hotter and drier conditions which will further reduce available habitat, long-term declines in abundance, wetland habitat, breeding and breeding species richness, and the possible impacts on residual core breeding stocks. Animals Australia highlighted climate change as a major contributor to declines in waterbird numbers and habitat and should be considered when making any decision on the duck season. Animals Australia also raised issues around enforcement, hunter competency, knowledge and training.
RSPCA	**CANCEL** the 2020 duck season	The RSPCA recommends that the 2020 duck season be cancelled due to poor environmental conditions, low game duck abundance and continued declines in populations, breeding and habitat availability, hotter and drier climatic outlooks that will put further pressure on waterbird populations, and reduced breeding. RSPCA also notes that game ducks are less widely dispersed and more concentrated than in the previous year. The RSPCA made several recommendations on ways to reduce waterfowl wounding.
Coalition Against Duck Shooting	**CANCEL** the 2020 duck season	The Coalition Against Duck Shooting recommended a cancelled season for 2020 in light of the poor environmental conditions, including long-term declines in abundance, the current low abundance of game ducks, reduced waterbird habitat and the outlook for hotter and drier conditions which would reduce habitat availability further, and poor breeding.
Regional Victorian Opposed to Duck Shooting	**CANCEL** the 2020 duck season	Regional Victorian Opposed to Duck Shooting recommended that the 2020 duck season be cancelled due to the long-term declines in all major indices for waterbirds over time, decline in wetland availability, that hotter and drier conditions that will lead to further reductions in habitat availability, the concentration of waterbirds and reduced breeding and a lack of reliable data on the impact of duck hunting. Issues regarding the ability of authorities to regulate hunting, the impact on residents who live adjacent to hunted areas and impact of hunting on the growth of tourism were also raised.

Animals Australia
for a *kinder* world

16 December 2019

Mr Graeme Ford
CEO - Game Management Authority
GPO Box 4509
Melbourne VIC 3001

Submitted by email: 33(1)

Animals Australia submission regarding the Environmental Conditions Relevant to Duck Shooting in Victoria 2020

Dear Graeme,

Animals Australia appreciates the opportunity to comment on the Game Management Authority (GMA) document 'Considerations for the 2020 duck season' (hereafter, "**Considerations 2020**").

In particular, we hope that following the precedent set last year, stakeholder submissions and presentations will also be considered by representatives from the Department of Environment, Land, Water and Planning (DELWP) and the Department of Jobs, Precincts and Regions (DJPR), as well as GMA staff.

We request that GMA display all submissions on its website as soon as possible in the interests of transparency, rather than waiting until the GMA recommendations have been finalised. This is considered 'best practice' in public consultation processes.

1. Introduction and recommendation

As you will be aware, Animals Australia opposes recreational duck shooting on animal welfare and ethical grounds; there is no necessity for, nor utility to, this practice, and native waterbirds are wounded at high rates due to the nature of shotgun pellet spray patterns and the inaccuracy of shooters. Recreational duck shooting is therefore inconsistent with the Victorian Government's Animal Welfare Action Plan which states that 'Animal welfare is a high priority for the Victorian Government'[1] and so (in our strong view) it should no longer be permitted.

In addition to the animal welfare imperative to stop recreational duck shooting, at present, native waterbirds (including 'game birds') are at perilously low numbers due to long-term drier conditions, elevated temperatures and the resulting increased evaporation that all contribute to depleted wetland habitat across the eastern states of Australia. The 'Aerial Survey of Wetland Birds in Eastern Australia - October 2019 Annual Summary Report' (hereafter, "**EAWS 2019**") states the current situation starkly:

- Although overall total eastern states waterbird abundance increased marginally by 8% from 2018 levels, increases only occurred in the northern states with Victorian waterbird abundance decreasing by 40% from 2018 levels.
- Drought, fire and habitat loss have created a barrier across most of NSW which will prevent birds migrating from north to south for the foreseeable future.
- 2019 has been exceptionally dry and significant rainfall deficiencies are continuing to affect most of Australia.
- Spring was the driest on record across Australia.
- Year-to-date rainfall has been the lowest on record for southern Australia.

[1] The Hon. Jaala Pulford MP, 'Animal Welfare Action Plan', page 3. Retrieved from: http://agriculture.vic.gov.au/agriculture/animal-health-and-welfare/animal-welfare/animal-welfare-action-plan

- The Murray-Darling Basin has experienced its worst 2 to 3-year drought period in over 120 years.
- 2019 has also been very warm *(Australian maximum temperatures second warmest on record; NSW warmest year-to-date on record; Victoria had its hottest day on record; Queensland had its third warmest year on record).*
- Wetland area was the lowest since surveys began.

The current and unprecedented bushfires provide a graphic and tragic illustration of, and further contribution to, the environmental stress which is affecting our community and wildlife. Meteorological projections offer no respite during summer (Considerations 2020, pp.9-15). The very last thing waterbird populations need, while at precariously low levels, is further 'predation' in the form of recreational duck shooting.

We recommend a complete cancellation of the 2020 season on environmental grounds.

Given these environmental factors and the impact of climate change on our natural environment (including wildlife species), it is of concern that GMA has not included any environmental groups in its consultation with stakeholders. The situation should not merely be a consideration and debate amongst animal welfare experts and shooters. GMA continues to omit the term "climate change" from its 'considerations', yet climate scientists have long warned of increased greenhouse gases leading to warmer, drier trends and lengthening bushfire seasons for the eastern states. This augurs badly for our native ducks. Claims that game ducks are 'resilient to harvesting' are based on last-century studies using decades-old data, before climate change made its presence strongly felt in Australia.

While climate change is the most serious omission in the GMA's reporting, there are also other omissions (see Section 3) and some pro-hunting 'red herrings' (Section 4).

ABC online article[2]

When Sydney scientist Richard Kingsford and his team from the University of NSW began their research in the early 1980s, they clocked up to a million waterbirds in aerial surveys.

"Now it's crashed to less than 100,000," Professor Kingsford said.

"While the birds could have gone elsewhere, it's most likely that they've died." …

Professor Kingsford said in a good year the wetlands would be filled with birds.

"We're seeing much bigger [declines] than I would have expected and that's on the back of 70 per cent declines over the 37 years that we've been doing this survey," he said.

"It is grim, many of the rivers are dry … as everybody knows we've got this gripping drought across the Murray-Darling basin and up into the north and we're just not seeing any wetlands."

The picture is grimmer at another internationally-renowned breeding ground for birds, the Macquarie Marshes, in north-western NSW.

Bushfires ravaged this area in the past few weeks, and where once there were thousands of birds counted, this year the team counted only one black duck.

The region around Moree has been in drought since 2017 and has received just 15 per cent of its average rainfall this year.

[2] Casben L (2019, November 19) 'Waterbird population has fallen as much as 90 per cent in Australia's east, shows 37-year study', ABC Online News. Retrieved from: https://www.abc.net.au/news/2019-11-19/drought-and-water-policy-to-blame-for-water-bird-decline/11715412

> *Professor Kingsford said with little to no water in the river system around Moree, farm dams are one of the few areas that birds crowd into during bushfires.*
>
> *"Fires have occurred in the past but are they becoming more regular as our wetlands are drying out, and that means they could be becoming more severe and burning the root system," he said.*

2. The critical numbers - in summary form

Total waterbird populations across all eastern states increased slightly (8%) over the previous (2018) survey, but are still well below average. Importantly, Victorian waterbird abundance declined by 40% from 2018 levels (*Considerations 2020*, p34, p35 and p50):

- The increase in other states is small as it's coming off a low base (2018 was a very poor year).
- "*Bird detectability can increase during dry periods as birds concentrate on remaining open wetlands. This may have contributed to the observed increase…*" (*Considerations 2020, p35)*
- There were nine "trainee observers" in the EAWS team this year (p.3), including one from GMA, and it is unknown (to Animals Australia) whether this may have affected counting results.

EAWS 2019 found that waterbird abundance in Victoria (all species combined, Bands 1 to 3) was about half that of the previous year (*Considerations 2020*, p34) which was itself a poor year.

- At a quick glance, the graphs on p34 appear similar. However, the different scales on the bar charts (albeit noted by the designer) fail to clearly illustrate the stark drop in abundance in Victoria.
- *Considerations 2020* does not provide specific information about game duck abundance, by species, by survey band in Victoria (see Section 3). Given the dramatic population slump in Victoria, any slight increase in abundance must have occurred in Queensland (Bands 9 and 10).
- EAWS 2019 found that 50 per cent of waterbirds (all species combined) were concentrated on 11 wetlands, most of which were in northern Australia (EAWS p3; p9) (Fig. 1).
- Given the absence of habitat in central eastern Australia, there is limited opportunity for large-scale movement between north and south *(Considerations 2020*, p50) (Fig. 2).
- Game ducks sheltering in Victoria will be marooned here and effectively subject to "canned hunting" if there is a 2020 duck season – contrary to the principles of "fair chase" extensively discussed[3] in the Regulatory Impact Statement for the *Wildlife (Game) Regulations 2012* that currently apply.

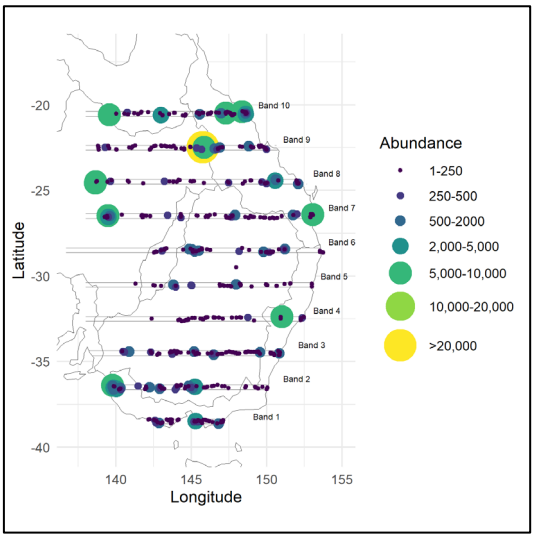

Figure 1. Waterbird distribution in Eastern Australia. Image from EAWS 2019, page 9.

[3] See pages 24-26; 68 and 105 of the RIS.

Wetland habitat area is at the lowest point for 37 years of the survey project (EAWS 2019) – a reflection of unprecedented drought.

- *"The fundamental requirement for healthy populations of waterfowl is habitat."* –Submission from Field & Game Australia (FGA) to GMA, Dec 2017, p.2.

"Long-term trends are more informative for predicting population status than year-to-year fluctuations" (*Considerations 2020*, p42)

- Examination of the game duck abundance graphs on pp35-36 of *Considerations 2020* shows that the 2019 figure lies well within the band of low readings from the Millennium Drought (late 1990s to 2010[4]).
- The long-term population trend is clearly downwards (Section 3, Fig. 14).

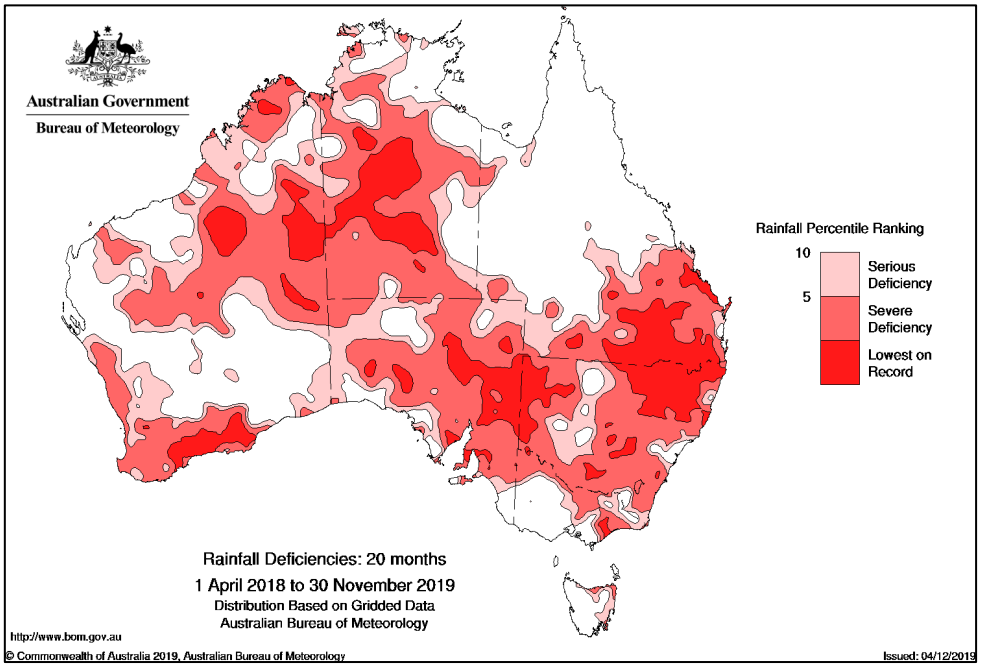

Figure 2. The swathe of drought across central eastern Australia. The resulting absence of habitat effectively prevents game ducks from moving between Victoria and Queensland. Bushfires are now in these drought-stricken groups. Image from Bureau of Meteorology[5].

3. Omissions

We are concerned about the following omissions from the *Considerations 2020* document and therefore that it fails to provide a comprehensive and adequate briefing in each of the following areas:

- Temperature trends
- Breeding data for game ducks
- Time series data for species of game ducks
- Discussion of the serious long-term decline in native duck populations
- Consideration of the wider environmental issues related to a duck shooting season – whether a 'restricted' season or a full season
- Reliable data for past seasons.

[4] http://www.bom.gov.au/climate/updates/articles/a010-southern-rainfall-decline.shtml
[5] Australian Government Bureau of Meteorology, 'Drought - Rainfall deficiencies and water availability, 20-month rainfall deficiencies map'. Retrieved from: http://www.bom.gov.au/climate/drought/

We discuss each of these omissions in detail below.

Temperature trends

This year, three pages of *Considerations 2020* have been devoted to the Lake Eyre basin which partially filled – before drying again. In our view this appears to over-emphasize a single and temporary event which cannot reverse the long-term trend. Unfortunately, elevated temperatures mean that wetlands dry more quickly than in the past. EAWS 2019 found a record low for wetland area, but even those areas will dry further over summer. Temperature trends for Australia are startling but have been omitted from the GMA's analysis – which as mentioned above, consistently avoids any links to climate change:

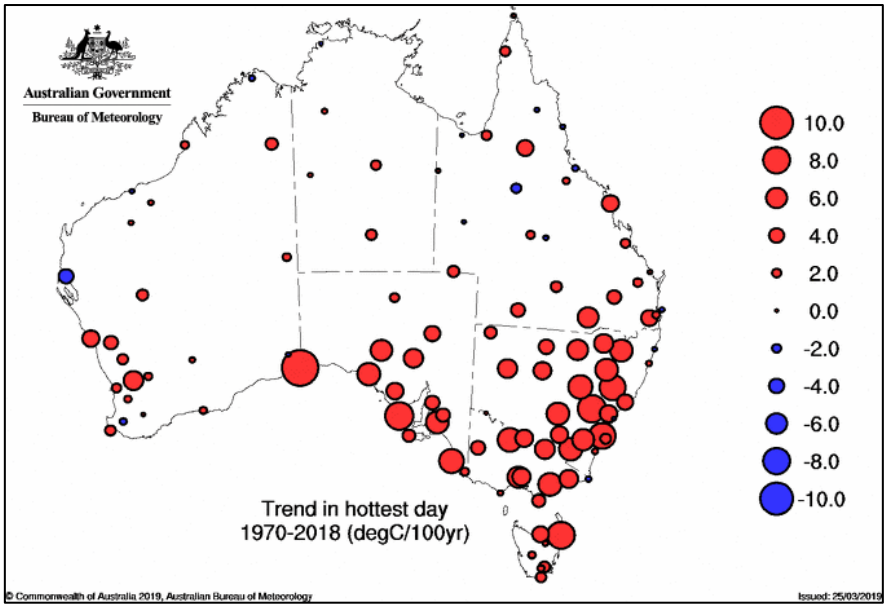

Figure 3. Trend in hottest day 1970-2018 (degC/100yr). Image from Bureau of Meteorology[6].

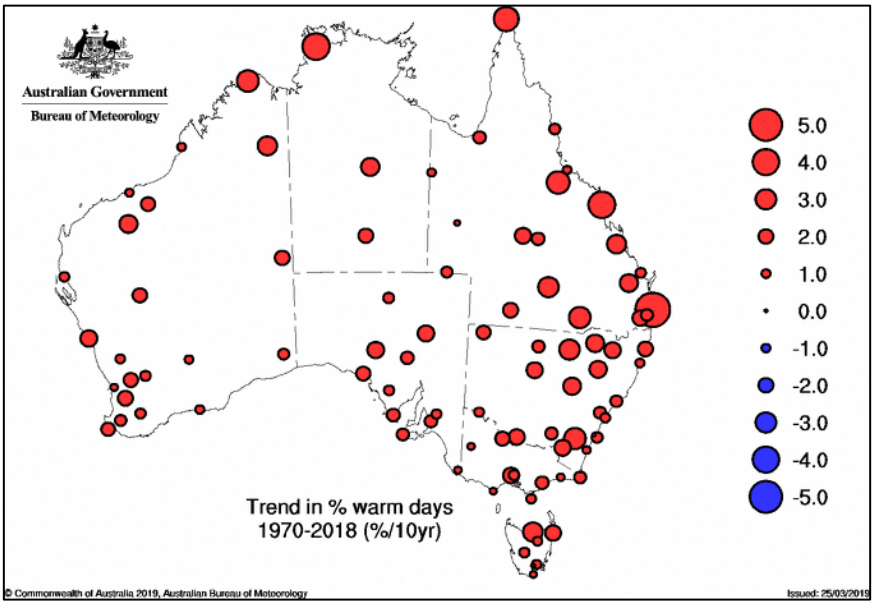

Figure 4. Trend in % warm days 1970-2018. Image from Bureau of Meteorology[7].

[6] Australian Government Bureau of Meteorology, 'Australian climate extremes - Trend maps'. Retrieved from: http://www.bom.gov.au/cgi-bin/climate/change/extremes/trendmaps.cgi?map=TXmx&period=1970

[7] Australian Government Bureau of Meteorology, 'Drought - Rainfall deficiencies and water availability, 20-month rainfall deficiencies map'. Retrieved from: http://www.bom.gov.au/cgi-bin/climate/change/extremes/trendmaps.cgi?map=TX90&period=1970

Breeding data for game ducks

As GMA will soon make a recommendation regarding another season for shooting game ducks, it's relevant to know whether these '**game**' species have been breeding. No such information is provided in *Considerations 2020* (as has been the case in the past also). In the past, we have obtained some relevant data directly from the Kingsford/UNSW research team, via personal request. It is unacceptable that this information is omitted from GMA's *Considerations* each year.

Considerations 2020 devotes three pages (pp.38-40) to breeding but fails to indicate whether the EAWS found any evidence of game ducks breeding. It's irrelevant and misleading then to say (p.39) that "Most of the breeding occurred in Band 1" – if none of that breeding observed by EAWS included game ducks. Regardless, if there was any breeding of game species it was minimal as *Considerations* (p.38) does indicate that of the six species observed to have bred, 97% was attributed to Black Swans and Straw-necked Ibis (non-game).

On p40, GMA provides figures from its opening weekend bag survey, which found a wide range (from 14.6% to 44%) of immature birds in bags. However, young birds are particularly vulnerable to shooters, having no previous experience of that fear or how to avoid that danger. Thus, the relatively high percentage of shot juveniles is a poor measure of breeding rates.

However, on the last page of *Considerations 2020*, we note one of the most important statements of the entire document:

> *"Excluding 2016, there has been very little large-scale waterbird breeding since 2013 and the existing populations constitute core breeding stock."*

If these 'core breeding stock' birds are permitted to be shot in 2020 it will further destroy the capacity to rebuild when more favourable conditions return. Note there is still no specific reference to game ducks.

Time series data for game duck species

In EAWS 2018 and EAWS 2019, Kingsford and the UNSW team have introduced trend analysis**.** <u>All four of the major indices - total waterbird abundance, breeding index, number of species breeding, and wetland area index - show statistically significant declines over time for the period 1983-2019.</u> The long-term survival of Australia's native waterbirds (including those declared 'game' species) is threatened. The dramatic decrease in the long-term average for game bird abundance is shown in Fig 5 below[8]. Recent years have been so poor that the "blip" from rains that ended the 'Millennium' drought has now been dissipated. This is highly pertinent as GMA has a mandate to promote "sustainability and responsibility in game hunting in Victoria".

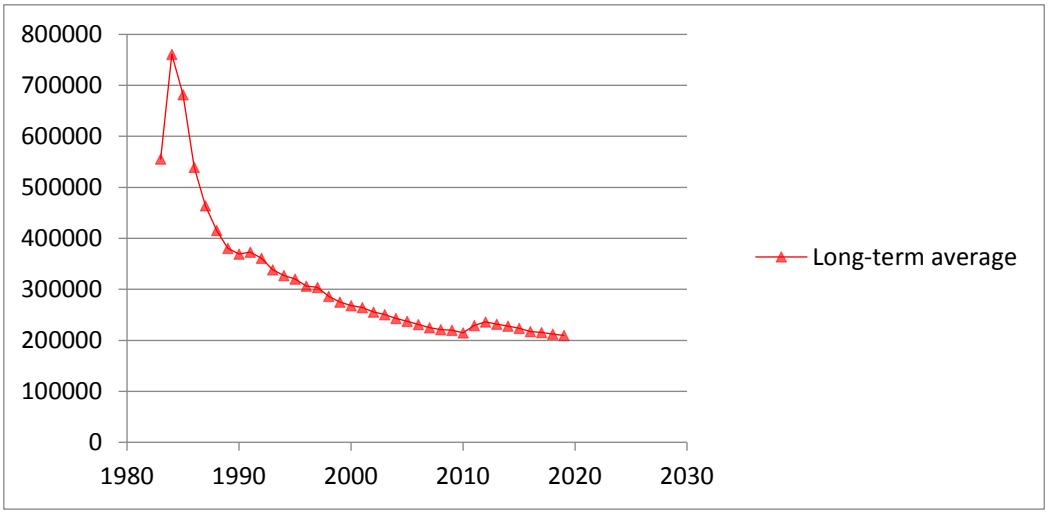

Figure 5. Long-term average: game bird abundance. Graph produced by Animals Australia using game duck abundance data from annual EAWS surveys.

[8] Graph produced by Animals Australia, using game duck abundance data from annual EAWS surveys.

Unfortunately, the GMA's *Considerations* documents omit the time series graphs for game duck species. As a stakeholder, we request that these graphs be included. We also seek the reinstatement of the former time series graphs by species and Survey Band. It is extremely difficult to study any long-term trends from the bar graph on p.37 of *Considerations 2020*.

Discussion of the serious long-term decline in game ducks

The 2019 EAWS Summary report states (p.3):

"Most game species abundances were well below long term averages, in some cases by an order of magnitude; six out of eight species continue to show significant long-term declines (Table 3)."

This decline is a serious concern for sustainability. It is unacceptable that this key finding was omitted from the GMA's *Considerations 2020* document. The following time series graphs (extracted from EAWS 2019) provides this key information. While the index is not an absolute count, it is based on the aerial count, and measures trends.

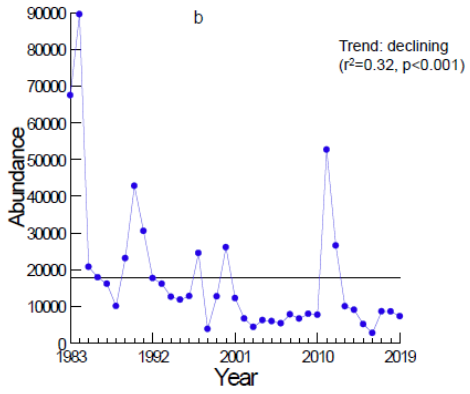

Figure 6. Pacific Black Duck: time series. Average index approx. 18,000; 2019 'harvest' 83,031

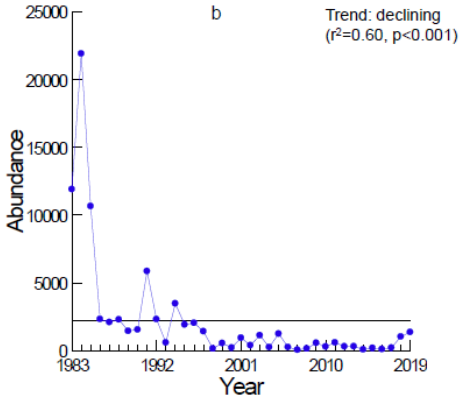

Figure 7. Australasian Shoveler: time series. Average index approx. 2,300; not permitted in 2019 'harvest'.

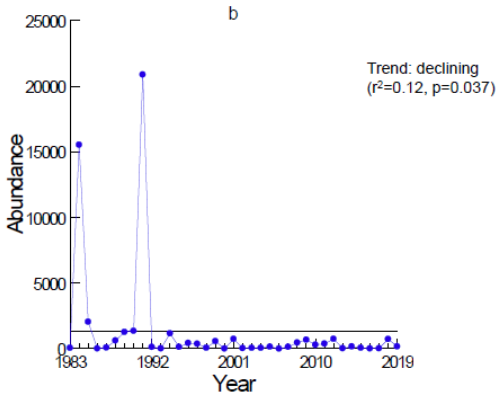

Figure 8. Chestnut teal: time series. Average index approx. 1,500; 2019 'harvest' 13,528.

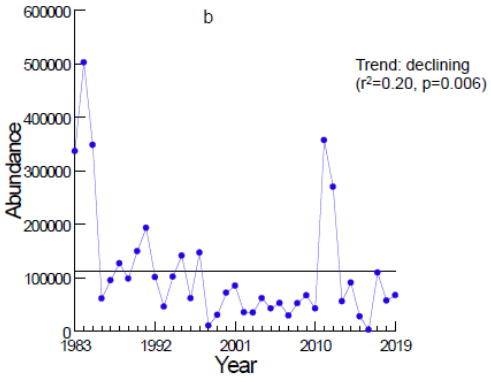

Figure 9. Grey Teal: time series. Average index approx. 115,000; 2019 'harvest' 63,421.

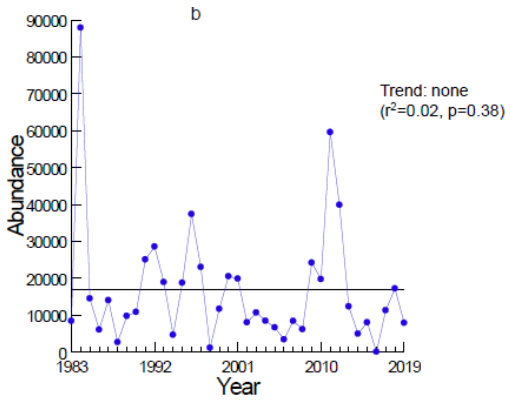

Figure 10. Hardhead: time series. Average index approx. 17,500; 2019 'harvest' 621.

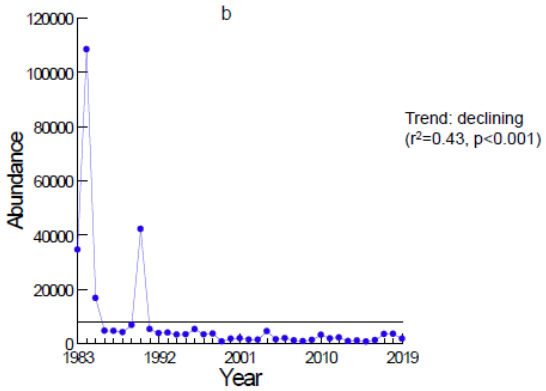

Figure 11. Mountain Duck (Shelduck). Average index approx. 8,000; 2019 'harvest' 8,685.

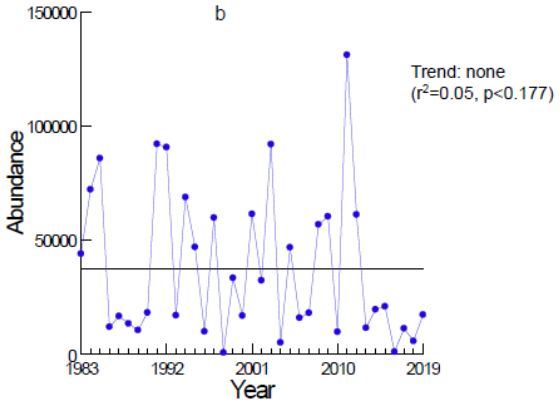

Figure 12. Pink-eared Duck. Average index approx. 35,000; 2019 'harvest' 3,103.

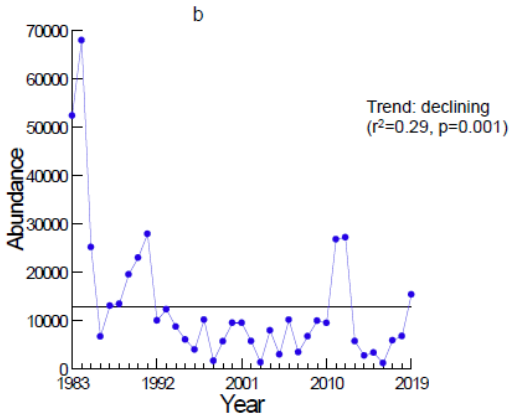

Figure 13. Australian Wood Duck. Average index approx. 13,000; 2019 'harvest' 57,588.

Of all these species, only the Wood Duck has nudged above the long-term average, and for the first time in 7 years; this is not a sustainable recovery. All the other game duck species populations remain in dire straits.

Note that there seems little relationship between these time series graphs and the 'harvest' numbers claimed (self-reported surveys) by Victorian shooters; there is no independent verification of their claims. However, these time series graphs are for all bands of the survey; it would be more helpful to have the data for individual Victorian bands. The pink-eared duck represented only one per cent of the 2019 Victorian 'harvest' compared with 12% in 2017. However, on the 2017 opening weekend, more than half the pink-eared ducks shot were juveniles, undermining the potential recovery from favourable conditions around that time.

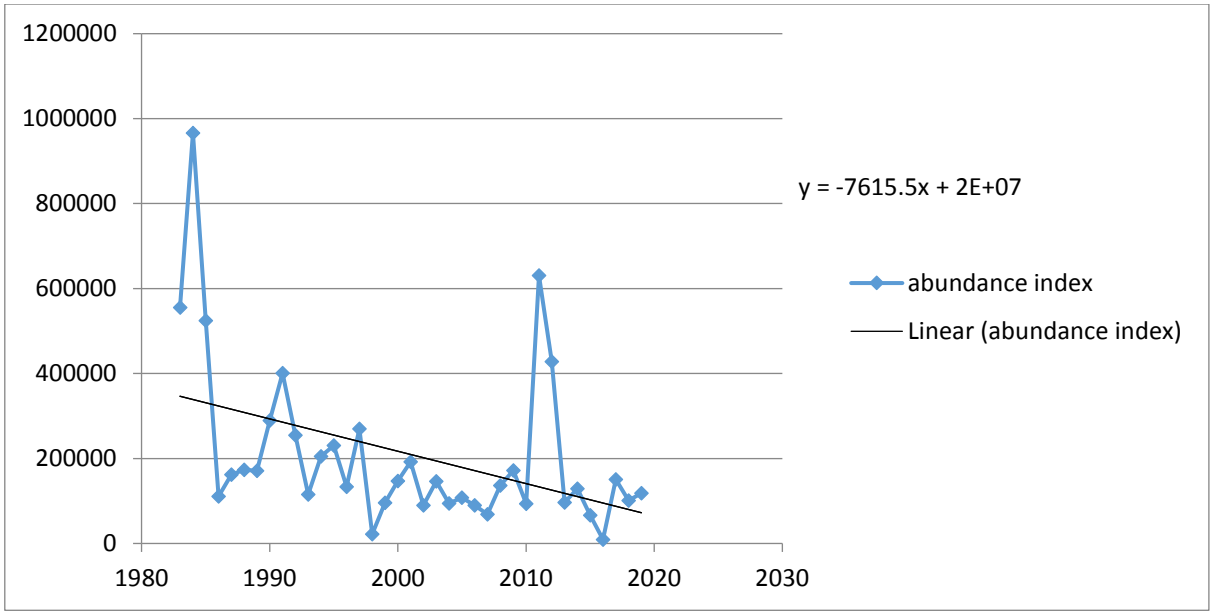

Figure 14. Game Duck abundance index: 1983-2019. Long-term trend of decline for all game species combined. Animals Australia performed this regression analysis for the annual EAWS data on game duck abundance.

The wider environmental issues – even for a 'restricted' duck shooting season

The impact of climate change and its dire consequences - unprecedented drought, unprecedented wildfires in a record-length fire season, and a record low wetland area index – have magnified this issue to an ecological issue with wide significance.

But even two years ago, there were serious environmental consequences of the 2017 duck shooting season. The illegal duck massacre at Kerang wetlands on the opening weekend gained media attention. But there was environmental damage elsewhere. This is best illustrated in the words of a highly credible eye-witness (refer box, Fig. 15) whose name we shall suppress (it is widely understood that those who speak out against shooters run the risk of retribution).

The 2017 independent review of GMA by Pegasus Economics[9] ('Pegasus review') was scathing in its assessment of GMA's performance as a regulator. Even with additional staff provided by the government's recent injection of funds to GMA, it is impossible for officials to be everywhere at all times (see for example, Figs 16 and 17).

The witness in Fig. 15 gives a convincing account of how powerless regional residents feel in relation to the regulation of duck shooting. GMA's media releases advise people to call Crime Stoppers if they see illegal behavior. However, an FOI request[10] revealed that police do not keep records of complaints relating to duck shooting, so it is impossible to assess the effectiveness of such action. In the situations mentioned in Fig. 15, the shooters would likely have ceased their illegal activities before any authorities were dispatched to investigate.

[9] https://www.gma.vic.gov.au/__data/assets/pdf_file/0011/481682/Assessment-of-the-GMAs-compliance-and.pdf
[10] Victoria Police, File reference 66341/19: final response to FOI request lodged on 8.5.19

Figure 15. Environmental impacts of duck shooting - an eye-witness account.

"Duck shooting has been disastrous for our local wetland species. I live near a significant seasonal wetland and after years of drought, our wetland remained full for the entire year for the first time in many years during 2017. Leading up to the 2017 duck shooting season, bird life was prolific on our wetland, many species nested for the first time there in years and the season was good for them, until the shooting started. From opening weekend for three weeks solid, beginning before dawn until after dusk, our wetland was a war zone. Nesting birds such as Cormorants, Darters and Night Herons abandoned their nests and young. The week before opening, the wetland was a naturalist's paradise. Species allowed me to pass by in my tinny with electric motor, unperturbed by my presence. A week later, gunshot scared all life that wasn't killed, and it left the wetland. I could not get out on my boat for 3 weeks until the shooting abated and by that time, the silence was deafening. All birds had disappeared and did not return, despite the wetland remaining full of water, until 3 months or more later and then only a handful of the species returned; many did not and still have not to this day returned.

2018 duck shooting opening saw roughly 30 ducks on our wetland. A dismal number that had never recovered from the previous shooting season. Within opening day, there were no ducks on the wetland, but despite this, the shooting continued; in fact a duck shooting camp decided to shoot continuously for half an hour from their campsite after dark, after 9pm that night, across the water, directly towards a homestead. Neighbours and I called the police as we could not get in touch with the GMA after hours on a Saturday night. Local police said they did not have the resources to send anyone out that night and it wasn't until I drove down and faced my headlights towards the water in line with their campsite across the wetland that the shooting ceased.

During both the 2017 and 2018 season, shooters have committed the crime of illegal timber removal. This act was done on a commercial scale with trailer loads of furniture slabs and old growth burls taken out of the forest. In 2018 they even had a portable mill with them to cut the slab lengths with ease. As timber removal was a serious crime performed by the shooters the season before, Parks Victoria made their presence felt on opening morning but did not return, despite phone calls to report the chainsaw and mill activity. Parks Victoria did not have the resources to return the following day when the timber removal began. The GMA and police were present on the Sunday morning of opening weekend but did not find any illegal activity. The shooters knew once the authorities left, they would not be checked upon again and this is when once more, the illegal timber removal began. Entire tree trunks were milled into commercial timber slabs.

Each season the locals here are left to pick up the pieces. Large quantities of rubbish are left at shooters' campsites and actually in the water. In 2017 I discovered two holes which had been dug and back filled right on the water's edge where I put my boat in, one with a plastic shopping bag full of spent shot gun cartridges and the other full of bird remains, including remains of an illegally shot Nankeen Night Heron. In 2018 there were spent cartridges left on reed stems protruding from the water, intentionally carefully placed there. The majority of the rubbish is used toilet paper, empty alcohol cans and bottles and spent cartridges. In 2017 the local kindergarten kids while attending bush kinder came across many bird remains which upset them.

Duck shooting season means that for the duration of the shooting, no one else can use the wetland - both locals and tourists stay away. Locals who use the area for birdwatching, horse riding, bushwalking and cycling cannot utilise the area for fear of being in the firing line and also the fear of running into aggressive, alcohol fuelled people with firearms and no one allows their children to utilise the area while the shooters are there. I have witnessed many times shooters in boats with gun in one hand, alcohol in the other, also shooting while boat is moving under power with motor unattended. I have witnessed Darter chicks jump out of the nest because shooters have passed too closely in boats. They nest in trees which stand in the water and the chicks were still fluffy with down, too young to leave the nest and when they hit the water they did not resurface. They drowned. I have picked up protected species floating in the water who have been shot, and recovered injured ducks many weeks later from the wetland. Governments need to protect our natural areas and giving permission to shoot our native duck species is allowing a minority group to wreak major environmental damage which affects numerous wildlife species, habitats and also community members who live in these areas."

Postscript: In 2019, the wetland was dry again. There were no ducks and no shooters.

A member of the public has provided photos of regulatory vehicles parked back at their Kerang motel by early afternoon on the opening day of the 2019 season, illustrating the point that enforcing hunting rules is physically difficult and patchy at best:

Figure 16. Photo taken at 1.19pm on 16 March 2019.

Figure 17. Photo taken at 1.22pm on 16 March 2019.

Reliable data from previous seasons

GMA obtains its 'harvest' data from a series of fortnightly phone surveys (200 shooters each fortnight) during the duck shooting season. A separate survey of 400 shooters is conducted at season end to ascertain how many took part in the season at any stage.

This year, there was an obvious discrepancy in the reporting (in *Considerations*), as the opening weekend participation was quoted as 42% yet the overall season participation was only 22%. This was later corrected to a season participation rate of 55%, with the problem attributed to a faulty spreadsheet submitted by the phone survey company.

Information later provided by Arthur Rylah Institute (to Animals Australia directly) suggests that of the 400 shooters in the final survey, 220 actually took part in the season, but 132 of their responses were corrupted and treated as 'non-participant'. It is disturbing that such an error was not detected by GMA and particularly so as this is an important (and politically sensitive) statistic.

A fundamental question then arises about the reliability of such phone surveys. In 2013, the then government undertook a hunter survey that was later used to claim significant economic benefits from hunting (since discredited[11]). However, page 9 of the 2013 survey report[12] acknowledged that one-third of licensed game hunters do not provide a phone number to the regulator. It is not known (to Animals

[11] A 2019 national survey of hunters and shooters confirmed critics' views that hunting and shooting provide minimal NET economic benefit because the money would be spent on other items if not shooting (see p1): https://www1.health.gov.au/internet/main/publishing.nsf/Content/ADE1F41517817F2ACA2584770015A21D/$File/Report-Economic-and-social-impacts-of-recreational-hunting-and-shooting.pdf.

[12] Dept of Environment and Primary Industries, *Estimating the economic impact of hunting in Victoria in 2013:* https://www.gma.vic.gov.au/__data/assets/pdf_file/0010/481717/Estimating-the-economic.pdf

Australia) how many duck licence holders currently provide a phone number, but it raises the question of how representative these surveys are of all duck shooters.

GMA produced an earlier report (July 2019) for stakeholders, and the data in that report was different to the final harvest report, in terms of licensed hunter numbers, opening weekend 'harvest' and participants – each measure being too high. Animals Australia believes the figures provided by GMA in regard to harvest and hunter participation for the 2019 season may not be reliable.

The following are further examples of concern regarding the GMA's capacity to deal appropriately with numerical/data issues:

- On p36 of *Considerations 202*0, there is a plot of rolling averages for game duck abundance, based on three-year subsets. That technique always results in the loss of one data point at each end of the graph, but GMA seems unaware of that and has levelled out the graph at each end. This is mathematically inappropriate and reduces the visual impact of the record peak in the early 1980s.
- In 2018, the harvest report had an error on p11 (Table 6) where there were two rows of data for Pink-eared duck; was one correct and the other erroneous, or should the two be added together?
- In 2015, a particularly dry year, the GMA revised the harvest figure upwards by 40% between the first week of December (when provided to stakeholders) and Christmas (when provided to the Minister). A subsequent FOI request[13] provided no useful information about the source of this "error" or any future precautions to guard against a recurrence. The final harvest report was not released until a year after the end of the 2015 shooting season.

It's difficult for the public to place trust in the GMA's data. All reports of shooter participation and "harvest success" are provided by shooters themselves, who are well aware of the political impact of high or low numbers.

As noted above, key aspects are omitted from the GMA's *Considerations 2020*. However, the 52-page report does include some seemingly extraneous and misleading information and graphics. We are concerned that the inclusion of such information then appears to present duck shooting in a (falsely) favourable light, for example:

- "*There are 25,000 hunters licensed to hunt duck in Victoria"* (p.2). The reader must go to p45 to read that almost half of the licensed hunters (45%) are inactive (did not hunt ducks in 2019).
- "*Duck hunting is regulated to ensure it remains safe, sustainable, humane and equitable*" (p.2). The comments from the eye-witness (Fig. 15 of this submission) and a long history of rescuer observations and formal complaints to GMA about hunter behaviour demonstrate that it is neither safe, humane nor equitable. The graphs provided in this submission show that it is not compatible with sustainability of game species.
- There is a major heading on p16: "*Habitat availability*". But the water storages across Australia and Victoria (pp.17-18) are largely irrelevant, as they accumulate water over long periods of time, depend on factors such as human population pressure, and are unsuitable as habitat for game ducks. The storages in the Murray-Darling Basin (pp.19-20) are more relevant; Australians are sadly familiar with the scenes of dead fish as water quality and quantity deteriorates in that system, and this is normally a critical area for waterbird breeding and feeding. Storages in the northern basin are now lower than during the Millennium drought, with no likely improvement over summer.
- Soil moisture, runoff and streamflow predictions are all poor, but at p.27 the GMA highlights a rare area of high pasture growth, despite a map dominated by red, orange, yellow areas – indicating low pasture growth.
- From p.28, *Considerations 2020* covers the 2019 EAWS. The new approach (2018 and 2019) of EAWS reporting provides a misleading visual impression that there are waterbirds and wetlands everywhere along the survey bands, because the maps are covered with dots of

[13] The former Department of Economic Development, Jobs, Transport and Resources, FOI Ref: 17-813

various sizes. However, the smallest wetland dot can represent a large 'puddle' of only 10 square metres (0.001 ha) and the smallest waterbird dot may represent only one bird.

- The statement: "*Waterbirds were most abundant in bands 2, 9 and 10*" appears no less than three times (p.32; twice on p.33) - without the qualifier that 2019 levels in the Victorian Bands are about half those of 2018 (and 2018 was a poor year). Note these weren't necessarily game ducks, but all waterbird species combined, so of questionable relevance for duck shooting.
- At p36, the years of peak populations are referred to as "outliers" – which we consider to be quite inappropriate when studying species that are known to follow a boom-and-bust pattern according to rainfall and habitat. It is significant that the last seven years of game duck abundance have been at or below the median – a highly unlikely situation if the pattern is random.
- It is noteworthy that both the long-term average (just over 200,000) and the median (around 150,000) of surveyed game birds have been calculated from painstaking counts across weeks of aerial surveys. But these aerial counts are considerably less than the 238,666 game ducks (self-reported to have been) shot for recreation in the 2019 season in Victoria. In our view this provides no confidence at all in the sustainability of species; the hunting and killing of this large number of native ducks each year puts these species at great risk.
- At p.43, we see the usual labels from GMA's *Considerations* documents: "*Where the ducks are"* and "*Where the habitat is*". But this bar graph for "ducks" is actually the bar graph for all waterbird species combined (see pp.33-34). We raised this error with GMA and obtained (by personal communication) the data for game ducks.

It must be emphasised that in Victoria the game duck abundance is about half that for total waterbirds, and the total waterbird abundance is itself about half what it was last year. The reality is that Victoria has very little in the way of game ducks or habitat this year. The 2019 "average days hunted" and "seasonal harvest per licence holder" on p46 are the lowest for a decade (at least) due to the poor season, and the situation has deteriorated since then.

4. Economic and social contributions of hunting

Since 2014, hunting and shooting organisations have touted the $439 million annual benefit alleged to flow to the Victorian economy from hunting-related activities following the publication of the study commissioned by the Victorian Department of Environment and Primary Industries (DEPI) entitled "Estimating the economic impact of hunting in Victoria in 2013."

Importantly, this reported economic benefit did not consider what impact a ban on hunting and shooting would have on the recreational behavior and spending patterns of participants.

In 2019, a new report was commissioned by the Commonwealth Department of Health (DOH) entitled "Economic and Social Impacts of Recreational Hunting and Shooting." The report was prepared by RMCG (the same consultancy who prepared the 2014 report commissioned by the DEPI) and was based on a survey of 16,576 hunters and shooters from all States and Territories.

This survey did attempt to explore how recreational time and spending would be impacted in the theoretical situation where hunting and sports shooting were both banned. The results paint a very different picture to the 2014 DEPI report. From p4 of the 2019 DOH report:

> "*The gross contribution to GDP, or the economic footprint, from recreational hunting and sport shooting activity in Australia in 2018 was estimated to be $2.4 billion, comprising $0.8 billion directly and $1.6 billion as a result of flow-on economic activity.*
>
> *The gross contribution does not tell us the benefits of hunting and shooting for the Australian economy, or conversely, the impact on the economy of the (hypothetical) situation where hunting and shooting were prohibited. If hunting and shooting were prohibited, hunters and shooters would redirect their expenditure to other goods and services, and in many cases to similar outdoor activities such as camping, fishing, four-wheel driving and so on. The 'net' contribution to the economy, taking into account the substitution of expenditure to other activities is estimated to be $335m, or 0.02 per cent of Australia's GDP*."

It is important to note that these are national figures, covering both hunting and sports shooting – in other words, their combined incremental contribution to the national economy is only $335 million, of which Victoria's share is a fraction of that, of which duck hunting's share will be a smaller fraction again (noting that the 2014 DEPI report suggested (p25) that expenditure on duck hunting trips contributed less than 20% of the total expenditure on hunting trips in Victoria).

The findings of the 2019 report also address the supposed health and social benefits attributable to hunting and sports shooting – finding that the vast majority of hunters would still continue to be active, enjoying outdoor activities such as hiking, camping and four-wheel driving even if hunting were banned.

5. Environmental concerns reinforced by the findings of the 2017 Pegasus Report

When, as now, there is irrefutable evidence that our landscape and its wildlife are in serious trouble, it's likely shooters may push for a 'restricted' season rather than a cancellation[14]. We argue strongly against allowing a 'restricted' season to occur in 2020.

A decision to review duck shooting policy in light of Labor's recognition of animals as sentient beings was overwhelmingly supported at Labor's State Conference last month. This is a further indicator and mirrors the strong shift in community opinion as people see the devastating impacts of drought, fire and climate change on landscape and wildlife. Duck shooting at the end of the 2020 summer would be seen as environmentally irresponsible (and cruel) by the majority of the community.

The following graphs are produced from published GMA statistics and show that in fact recreational duck shooting is a dying activity:

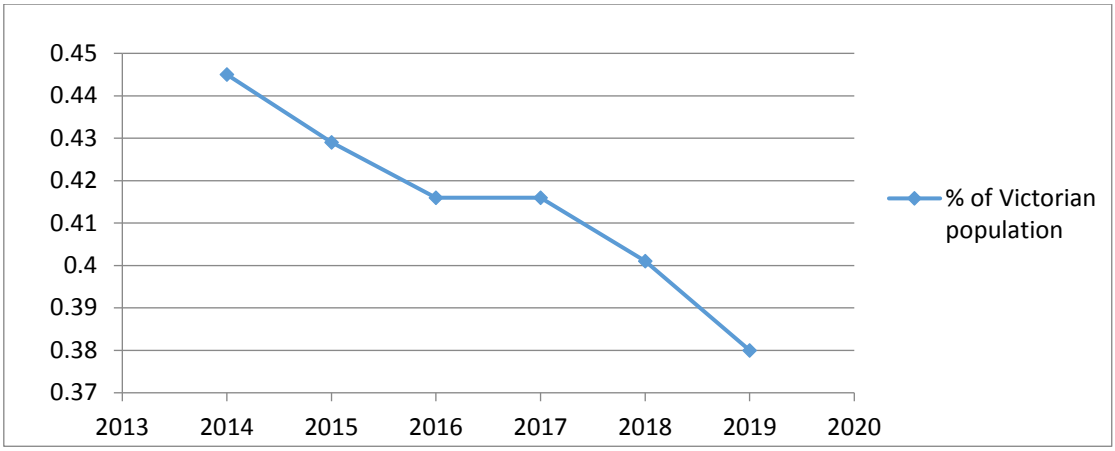

Figure 18. Licensed duck shooters as a percentage of the Victorian population.

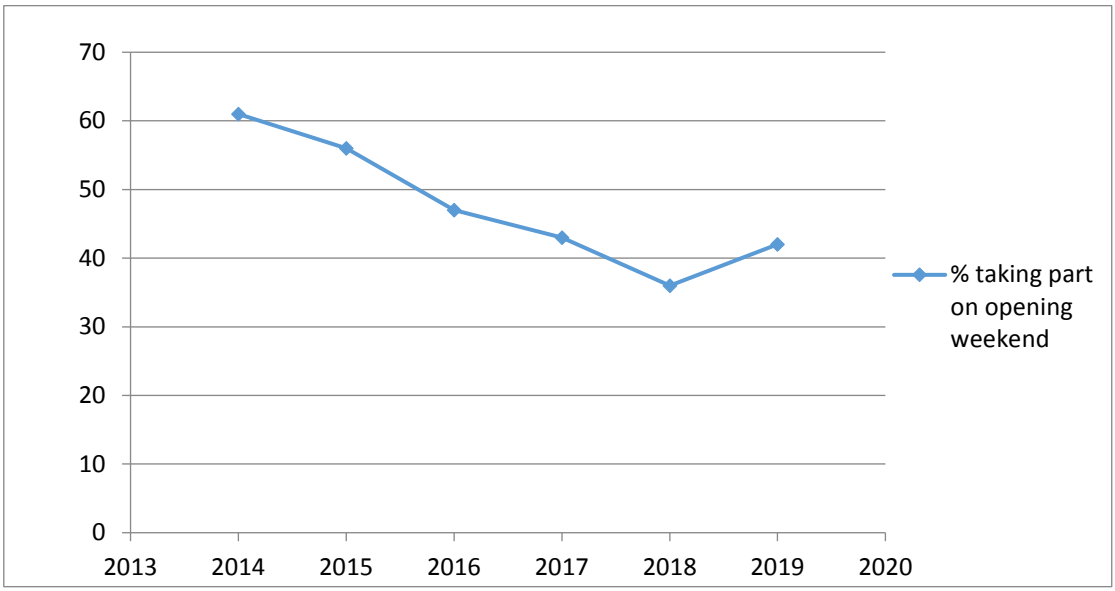

Figure 19. Percentage of licensed duck shooters active on opening weekend.

[14] In December 2017 a submission to GMA from hunting lobby group Field & Game Australia argued for five years of full seasons for all eight game bird species "to allow for the collection of standardised data". Although FGA tags itself as "the surprising conservationists", such a proposal would have led to an environmental disaster given the prevailing conditions.

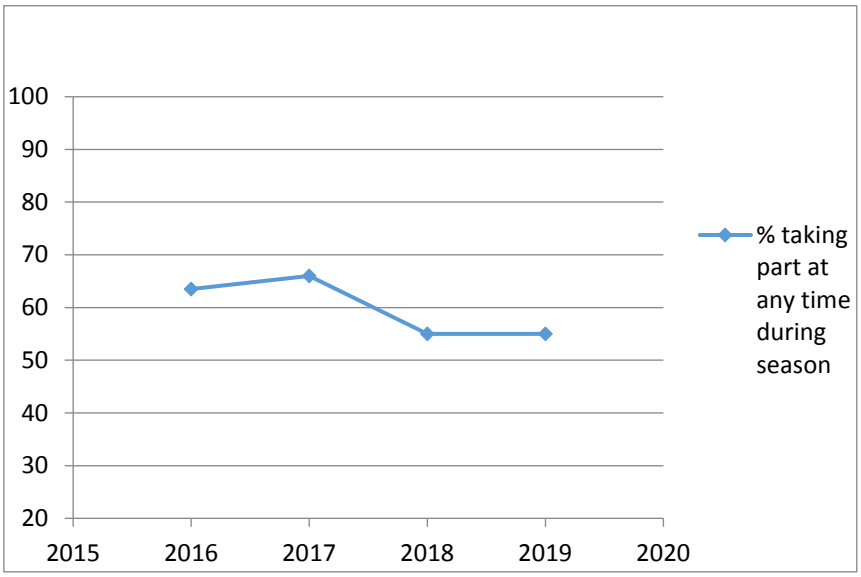

Figure 20. Percentage of "active" duck shooters - those who took part at any time during the season.

State Premiers from both political 'sides' (Kennett 1995; Bracks in 2003; 2007, 2008) have taken the decision to cancel duck shooting seasons in very dry periods. Some may try to compare the current situation with those years, but apart from the difficulty of comparing droughts (no two are alike) we have a clearer, more powerful new force at work today with climate change. It is more than a decade since a season was cancelled, and the trend of warmer temperatures and overall decrease in rainfall continues to bite in ways that were unfamiliar even a decade ago.

A key problem with a 'restricted' season is that bag limits cannot be enforced. It is impossible to have officials watching over shooters 24/7 at all the myriad locations around the state where they may find a waterway and some birds to shoot, including private property. Again, the real-life account (Fig. 15) illustrates how impractical this is.

In addition to game birds that would be shot without supervision, there is a largely unaddressed problem of illegal shooting of protected species. The Pegasus Report (pp.26-27) raises concerns that remain unresolved:

- With the exception of the once-in-a-lifetime Waterfowl Identification Test (WIT), "*applicants currently seeking a licence to hunt [ducks] are not required to prove any knowledge of the law, demonstrate even a basic understanding of safe and responsible hunting practices or possess any hunting competence… GMA is providing education and awareness programs to hunters only after they have acquired a licence to hunt, which does not provide any strong incentive for hunters to participate… The current arrangements are analogous to VicRoads providing driver education only after a licence has been allocated to drive on a public highway.*"
- "*Current licensing arrangements are ineffective in ensuring a minimum acceptable level of awareness and competence amongst hunters, and leaves the GMA exposed to criticism that it is not fulfilling its statutory obligations to promote the sustainability and responsibility of game hunting in Victoria.*"
- "*…the 2015 report from the Arthur Rylah Institute indicated that a much larger sample of shoreline surveys is required… for monitoring compliance with the game hunting laws and animal welfare issues.*" (p.29). Such surveys look for dead and wounded birds (game or protected species) that have been abandoned by shooters.
- "*The GMA has broad responsibilities to the Victorian community and cannot rely on hunting organisations to provide information to non-members and unlicensed hunters…*" (p.35).
- "*The GMA is not effectively delivering its compliance and enforcement responsibilities.*" (p.43)
- "*The GMA's current position exposes the Minister and the Board to considerable policy and regulatory risk and if not addressed will contribute to continued non-compliance with the game hunting laws and the erosion of the hunting community's social licence.*" (Executive Summary)

Polling results (Roy Morgan poll in 2007 during the Millennium drought) show that the community is overwhelmingly against duck shooting, so any 'social licence' that may have existed is no longer present.

Although the WIT now has a slightly higher pass-mark of 85% (one wrong bird in every seven), the thousands of duck shooters who qualified previously under a lower WIT pass mark, are still allowed to shoot. Driving licence tests are known to deliver an 'instant fail' for important errors and this must be the standard for 'shooting' the wrong bird in the WIT. It can be a jailable offence to shoot the wrong bird in the field.

Animals Australia is extremely disappointed in the failure of GMA to progress the criticisms of the Pegasus report (from 2017) relating to the lack of effective education, awareness and competence training of licensed shooters, and thus its failure to fulfil 'its statutory obligations to promote the sustainability and responsibility of game hunting in Victoria'.

In 2014, when the GMA legislation was going through the state's parliament, a duck-shooting MP (Mr Katos) spoke as follows about the responsibilities of the new agency, especially in times of severe drought (emphasis added)[15]:

> *"It is important that members of the authority are at arm's length from the hunters themselves. You do not want to have a conflict of interest on the board. Obviously, hunters will always want longer seasons and larger bag limits. In certain climatic conditions those things simply may not be possible. For example, if there is an extreme drought, duck numbers will be lower and you would have to have lower bag limits, and at times you would not have a season. Those are the sorts of things that the Game Management Authority will look at."*

We now have a dire climatic situation, including the outlook for the coming months, and knowledge of extremely low waterbird and breeding numbers, and so the 2020 season must be cancelled.

6. Conclusion

Considerations 2020 acknowledged (on the last page) that:

> "*Given the absence of habitat in central eastern Australia, there is limited opportunity for large-scale movement between north and south*."

On p50, *Considerations 2020* acknowledges that existing waterbird populations constitute core breeding stock. It also states that "game duck abundance increased slightly from last year" - but that increase was not in Victoria, where waterbird abundance fell by 40 % (.p34). With widespread drought - and now fires - acting as a barrier to movement southwards, any modest increase up north (from a low base) is irrelevant for the Victorian shooting season. Sustainability principles demand that the remnant game ducks sheltering in Victoria should not be shot.

Environmental conditions in the eastern states have entered unprecedented times. Victoria is yet to experience the full blast of summer heat and fires. For a regulator mandated to "*promote sustainability and responsibility in game hunting in Victoria*" there can be nothing responsible or sustainable in sanctioning recreational killing of native ducks in 2020 – even for a 'restricted' season.

The 2020 duck shooting season must be cancelled, on the current compelling environmental grounds.

[15] Hansard Victoria, Legislative Assembly, 11.3.14, page 592

Please contact me if further clarification is required.

Yours sincerely,

Glenys Oogjes
Chief Executive Officer

E:
P: 33(1)

Submission to the Game Management Authority regarding its proposal to conduct a 2020 Victorian duck shooting season

Due to the continuing environmental catastrophe across eastern Australia with dangerously low numbers of waterbirds, drought, rivers and major waterbird breeding wetlands dry, huge fish kills, and no relief in sight, the only responsible decision the GMA can recommend is for Victoria's wetlands to be closed to duck shooting in 2020.

However, in previous years it was blatantly obvious that drought, low waterbird numbers and dry rivers played no part in the GMA's decision-making. It appeared that GMA's decision was made long before non-shooting stakeholders sent in their submissions.

Other reasons why a moratorium must be put into place for next year are listed below.

Victoria's 2019 duck shooting season

In 2019, there were very few waterbirds in Victoria. We know this for a fact as the information came directly from a senior GMA manager in a meeting after the 2019 duck shooting season had ended. I made the comment that there were very few duck shooters on the state's wetlands during the season. The senior manager surprised me with his response when he said that there were very few duck shooters out on the wetlands because there were very few waterbirds in Victoria. The senior manager surprised me by saying there were few duck shooters because there were very few waterbirds in Victoria.

Yet in the lead-up to the announcement to hold a duck shooting season in 2019, stakeholder groups such as Birdlife Australia, RSPCA, Animals Australia, Regional Victorians Opposed to Duck Shooting and the Coalition Against Duck Shooting, all advised the Game Management Authority that a moratorium should be called because of the low numbers of waterbirds.

Aerial waterbird surveys conducted across eastern Australia by Professor Richard Kingsford had highlighted that waterbird numbers were in serious trouble. This begs the question as to why the GMA allowed a recreational duck shooting season to go ahead.

We believe that Victoria's financial contribution to Professor Kingsford's aerial surveys is a waste of taxpayers' money as long as the GMA continues to ignore his scientific information.

Or is it that the GMA deliberately misrepresents the low numbers of waterbirds by fudging the figures, to give a dwindling number of active Victorian duck shooters (who make up less than 0.2 per cent of Victoria's population) a shooting season, instead of protecting Australia's native waterbirds?

The GMA is failing to regulate duck shooters and is instead pandering to the very duck shooters it is supposed to regulate.

Pegasus Report condemns GMA

The 2018 Pegasus Report following the massacre of waterbirds, including protected and threatened species, at the Ramsar-listed Koorangie Marshes, was scathing of the GMA's failure to regulate and enforce compliance with the law.

The only reason the 2017 Koorangie Marshes massacre was exposed to the public was because our rescue and enforcement teams were out on the Marshes with the shooters. The illegal massacre led to extensive media coverage.

The 2017 massacre occurred in front of a record contingent of GMA compliance officers, Parks Victoria and Victoria Police, who were forced to remain on shore because of Occupational Health and Safety Regulations. It's impossible for the authorities to see what is taking place on a wetland when they are forced to stand on shore.

This was not the first massacre to take place in Victoria. Following a previous slaughter at the Box Flat wetland in northwest Victoria in 2012, which was hushed up by the authorities, we exposed the 2013 Box Flat massacre to the media and the public, after being tipped off.

In 2012, Magistrate Peter Mealy, in a case brought against five rescuers, commented that he was "surprised" members of the public had to provide veterinary care when he thought this would have been the government's role.

The Coalition Against Duck Shooting believes it's time to call for a Royal Commission to investigate the violence, cruelty and abuse that native waterbirds are forced to endure at the hands of duck shooters, and the failure of the GMA to regulate and enforce the law.

The Royal Commission into banking was contemptuous of the regulator ASIC. Instead of protecting the banks' clients, the regulator was in bed with those it was supposed to regulate. The same applied to the building regulators who were caught out when the cladding scandal hit the headlines, highlighting how the regulators were protecting the interests of developers and builders instead of protecting the interests of the public who were entering into the biggest financial contracts of their lives. In the same way, the GMA falls down in its regulatory and enforcement duties.

During a recent board meeting, the GMA's Chairperson (a long-time duck shooter), was asked whether he thought he could pass an accuracy test if one was introduced before duck shooters were allowed out onto the wetlands. He said that he didn't know. If the Chairperson, who is an experienced duck shooter, didn't know if he could pass an accuracy test, one must wonder about the skills of other duck shooters. Maybe this is the reason why an accuracy test has never been introduced.

Due to the nature of a shotgun, cruelty takes place immediately a duck shooter pulls the trigger. It's totally unacceptable that the RSPCA has been banned from the wetlands. The only reason the GMA would want the anti-cruelty organisation banned from the wetlands would be to protect duck shooters from cruelty prosecutions. The RSPCA has also been banned from taking its high-tech mobile veterinary clinic out to the wetlands to treat

wounded and abused native waterbirds. This job is left to concerned and compassionate veterinarians who volunteer their services to ease the pain and suffering of wounded birds.

GMA fails the 'pub test' on cruelty and abuse of native waterbirds

Following the damning findings of the 2018 Pegasus Report, the GMA remains unwilling to prosecute duck shooters, even when handed clear video images of obvious cruelty and abuse.

The GMA's stated excuse is that it's difficult to find a professional expert qualified to determine whether the cruelty images provided to the GMA are, in fact, cruelty images. The GMA knows very well that the videos do in fact show cruelty, but they are trying to obfuscate in order to avoid prosecuting duck shooters.

Do in fact show cruelty. Surely the RSPCA has any number of professional experts who could make a judgement call as to whether a cruelty offence has taken place. Instead of this continual negative response to prosecution, it's time for the GMA to be proactive in prosecuting duck shooters for cruelty.

Unless the GMA is prepared to prosecute duck shooters featured in the 2019 cruelty videos, there is no point in our enforcement team bothering to approach and work with the regulator. In future, our rescuers will bypass the GMA in favour of mainstream news coverage and social media.

GMA board members' serious conflicts of interest

GMA board members who have, or have had, a serious conflict of interest include a former CEO of Field & Game Australia (FGA). In 2009, the shooting organisation was investigated for water theft during the millennium drought, just before the opening of the 2009 duck shooting season. Water had been illegally siphoned from the Latrobe River to fill FGA's private shooting wetland, Heart Morass, near Sale. Southern Rural Water investigated and laid charges. The FGA didn't fight the charges and instead, its wetland manager pleaded guilty to water theft in the Sale Magistrates' Court on 23 June 2009. In spite of the prosecution, FGA's then CEO was later appointed to a position on GMA's board. He held this position for a number of years.

Another GMA board member showed his cowboy cavalier attitude to our native waterbirds when he bragged on a shooters' internet site about shooting 250 birds before 8am on the opening of the 1974 duck shooting season. While this event sounds totally implausible, the board member has since admitted it is correct. You may wonder why this is important today. But it is still relevant because by bragging about the incident on social media, it highlights the cowboy mentality of this current GMA board member.

Duck shooters claim they only shoot for food. If this were true, then the GMA board member who shot 250 waterbirds before 8am, must have been exceptionally hungry that morning.

Also, if duck shooters only shoot for food, why wasn't Heart Morass closed to duck shooting in 2019, following the EPA warnings that birds there, (and at other nearby wetlands), had high levels of toxins from PFAS used in firefighting, and should not be consumed?

Data FAIL – honest mistake, or fudging the figures?

The first version of the GMA's 2019 publication, *Estimate of duck and Stubble Quail Harvest in Victoria for 2019* section 4.1, stated that an estimated 5,401 active duck shooters hunted during the 2019 duck shooting season.

Yet this figure was quietly changed in later editions of the publication, increasing the numbers of active duck shooters to an estimated 13,550. Even this higher figure means that active duck shooters still only represent the miniscule figure of just 0.2 per cent of Victoria's population. It is no wonder that regional towns situated near duck shooting wetlands are in serious financial trouble.

Was this discrepancy an honest mistake by the GMA, or have the figures been fudged to make it look like there were more shooters out on the wetlands in 2019 than there really were? (It is surprising that this discrepancy was only picked up by the non-shooting stakeholder groups. One would have thought that a multi-million-dollar statutory authority that employs highly-paid professionals, would have noticed the error.)

The GMA reported that duck shooters killed an estimated 238,000 native birds in 2019. Since duck numbers were so low, they must have shot every bird in Victoria. Or were the numbers of duck shooters artificially inflated to match the GMA's figures of birds supposedly shot? Or was it just sloppy work by the GMA?

There is no doubt that the shooting organisations will continue to push for a duck shooting season in 2020, no matter how few waterbirds are on the state's drying wetlands.

In 2017, as an example that backfired on the shooters, FGA lobbied for the Koorangie Marshes to be left open to shooting even after threatened Freckled and Blue-billed Ducks were sighted. The shooters argued that because they had passed the Waterfowl Identification Test, the threatened birds would be safe. The GMA made the mistake of leaving the Marshes open to shooting. However, rescuers recovered 140 illegally shot threatened Freckled Ducks and 43 illegally shot threatened Blue-billed Ducks, plus other protected species, following the massacre that took place on that opening morning.

This out-of-control massacre led the government to instigate the independent Pegasus Report which was scathing of the GMA's failure to regulate duck shooting and enforce the law.

Latest data shows waterbirds in crisis

The latest data from the Eastern Australian Waterbird Survey (EAWS) shows that waterbird populations have plummeted, on a long-term continuum, to a record low of approximately 10 per cent of their numbers in 1983 when these annual surveys began.

In addition, the Bureau of Meteorology (BOM) has predicted more extreme heat, drought and bushfire conditions for Victoria and southeast Australia.

The GMA recognises the extremely dry and worsening conditions, and the serious decline in waterbird populations, including lack of breeding and habitat availability. The GMA states:

- 'Victoria has experienced "below" to "very much below" average rainfall for most of the state.
- 'A positive IOD, negative SAM and delay to the onset of the monsoon are contributing to the prediction for a hotter and drier summer for eastern Australia. Should this occur, waterbird habitat availability will continue to decline.
- 'Waterbird abundance, breeding and habitat availability are showing long-term declines.
- 'Excluding 2016, there has been very little large-scale waterbird breeding since 2013 and the existing populations constitute core breeding stock.'

With the huge loss of around 90 per cent of Australia's waterbirds since the mid-1980s, and the outlook for hotter and drier conditions over summer, waterbirds in Victoria need sanctuary and protection.

Because of drought and low bird numbers, conditions are now worse than when seasons were cancelled in 2003, 2007 and 2008.

It is likely that the shooting organisations will try to justify a 2020 duck shooting season by arguing there are plenty of birds in Victoria. But if this is the case, it will be due to birds escaping the drought and bushfires in NSW and Queensland and with major waterbird breeding areas in NSW, such as the Menindee Lakes and Macquarie Marshes completely dry, it is important that adult breeding birds can take refuge in Victoria until conditions improve.

Duck shooters should not be permitted on artificially filled wetlands. These wetlands act as sanctuaries for birds escaping the drought in other states and firing at them would equate to 'canned hunting'.

Conclusion

While the GMA looks after the interests of duck shooters, concerned members of the public go out on the wetlands to look after and protect native waterbirds.

The Coalition Against Duck Shooting's objective has been to rescue wounded birds, provide mobile veterinary clinics to tend to their wounds and to recover illegally shot, protected and threatened species. We have also exposed the shooters' illegal activities and crimes against native waterbirds.

It is imperative that a moratorium is called for 2020 in Victoria, if not a permanent ban.

Failing this, Victoria needs to call a Royal Commission that will examine the violence, cruelty and abuse of Australia's sentient native waterbirds by a handful of active duck shooters who make up only 0.2 per cent of Victoria's population.

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13 December, 2019.

field & game™
AUSTRALIA INC.

DUCK HUNTING IN VICTORIA 2020

SSAA VICTORIA

Background

The *Wildlife (Game) Regulations 2012* provide for an annual duck season running from 3rd Saturday in March until the 2nd Monday in June in each year (80 days in 2020) and a 10 bird bag limit. Section 86 of the Wildlife Act 1975 enables the responsible Ministers to vary these arrangements.

The Game Management Authority (GMA) is an independent statutory authority responsible for the regulation of game hunting in Victoria. Part of their statutory function is to make recommendations to the relevant Ministers (Agriculture and Environment) in relation to open and closed seasons, bag limits and declaring public and private land open or closed for hunting.

A number of factors are reviewed each year to ensure duck hunting remains sustainable, including current and predicted environmental conditions such as habitat extent and duck population distribution, abundance and breeding.

This review however, overlooks several reports and assessments which are intended for use in managing game and hunting which would offer a more complete picture of habitat, population, abundance and breeding, we will attempt to summarise some of these in this submission, these include:

- 2019-20 Annual Waterfowl Quota Report to the Game Licensing Unit, New South Wales Department of Primary Industries
- Assessment of Waterfowl Abundance and Wetland Condition in South-Eastern Australia, South Australian Department for Environment and Water
- Victorian Summer waterbird Count, 2019, Arthur Rylah Institute for Environmental Research

As a key stakeholder representing 17,801[1] members, Field & Game Australia Inc. (FGA) has been invited by GMA to participate in the Stakeholder Meeting and provide information to assist GMA brief the relevant Ministers, FGA thanks GMA for this opportunity.

Duck hunting is regulated to ensure it remains safe, sustainable, humane and equitable.

Decisions applied to game management must be based on facts and data, not instinct, intuition, ideology, or prejudice.

[1] Field & Game Australia 2018-2019 Annual Report

Duck Hunting in Victoria

There are currently 25,154 hunters licensed to hunt duck in Victoria. [2]

This is an increase of 1,438 (or 7%) since the millennium drought, with the La Niña pattern developing during the autumn of 2010, bringing record-breaking rains in the Murray-Darling basin and well above average rainfall across the south-east of Australia.

This number is down slightly (764 or 3%) since 2018 due to a combination of poor seasons, reduced season lengths and bag limits.

We have seen a 9.6% increase in hunters licensed to hunt ducks over the past 25 years, despite having 3 cancelled duck seasons and 14 restricted duck seasons, which have included reduced season lengths, bag limits and species.

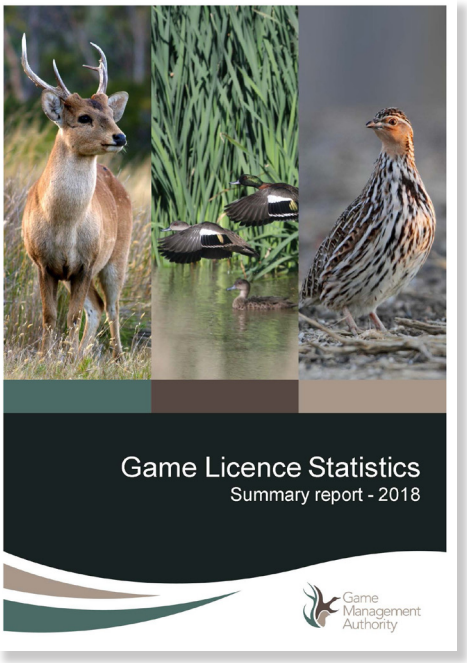
Cancelled Duck Seasons: 1995, 2003, 2007, 2008

Modified Duck Seasons: 1998, 2000, 2001, 2002, 2004, 2005, 2006, 2009, 2010, 2015, 2016, 2017, 2018, 2019

Normal Duck Seasons: 1996, 1997, 1999, 2011, 2012, 2013, 2014

Between 1996 and 2018 there was a 78% increase in the total number of game licence holders, a 10% increase in duck licences and a phenomenal 397% increase in deer licences. [3]

The scientific panel formed to review New South Wales open seasons in November 2000 concluded that "All scientific studies available to the review indicate that hunting has no effect on waterfowl populations". [4]



[2] GMA – December 2019

[3] GMA - Game Licence Statistics Summary report - 2018

[4] Scientific panel review of open seasons for waterfowl in New South Wales, R.Kingsford, G.Webb, P.Fullagar, November 2000

Economic & Social Benefits

This submission by FGA reinforces the importance of managing both hunters and habitat, it also recognises the economic and social benefits Victorians derive from hunting.

Victoria also benefits from hunting, the Department of Environment and Primary Industries (DEPI) estimated in 2013 that hunting was worth $439 million to the Victorian economy[5], duck hunting accounted for 24% or $106.3 million of the total Victorian hunting expenditure.

While in 2019 The Commonwealth Department of Health reported the gross contribution from recreational hunting and sport shooting in Australia was $2.4 billion[6], Victoria contributed $638M to this total.

Also, from the same report, hunting and shooting provides opportunities for physical activity, as well as pathways for greater wellbeing through nature connection, self-confidence, social networks, physical activity and nutrition.

Hunters and shooters have:

- Higher physical activity than the general population
- Higher levels of well-being than the general population
- Reasons for hunting and the social benefits are varied. In the 2013 DEPI study, hunters reported the following about their hunting:
- 70% of hunters hunt to obtain food
- 92% said hunting helped them spend time outdoors and connecting to nature and special places
- 87% stated that hunting helped them spend more time outdoors than they would otherwise.
- 87% said hunting enabled them to spend time with people who have a similar outlook
- 83% said that it enabled them to spend time with friends
- 80% said hunting led them to feel more confident (self-confidence is associated with more positive mental health)

[5] Department of Environment and Primary Industries 2014

[6] Economic and social impacts of recreational hunting and shooting – Commonwealth Department of Health 2019

Climate

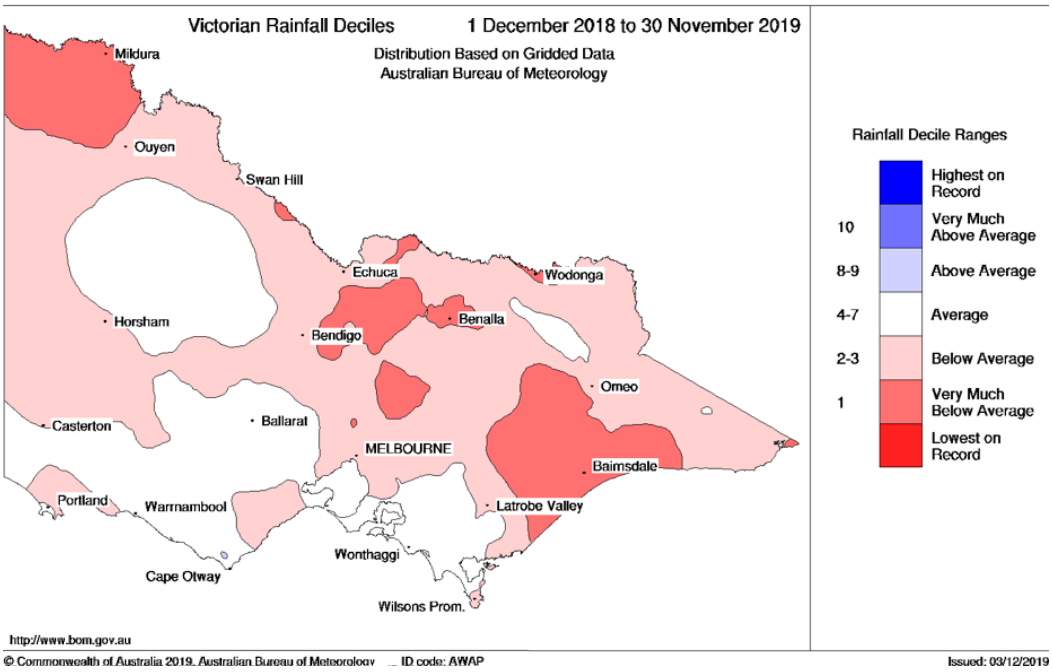
Again in 2019, in the absence of any waterfowl science designed for game management purposes, we are relying on climate data to predict waterfowl abundance, how can we do this without any modelling?

Rainfall averages do not take into account flooding events where 12 months of rainfall can fall in a single event, creating flooding events and filling wetlands, as is currently the case in South West Victoria and Gippsland.

Our position is that duck hunting in Victoria is sustainable, regardless of climatic conditions. We base that position on the fact that there is a vast amount of permanent habitat available, and that much of Australia is essentially a sanctuary.

Compared to other parts of Australia, Victoria has been lucky and received average rainfall over the last 12 months in most of the Glenelg Hopkins, Corangamite and West Gippsland catchments, as well as large parts of the Wimmera Catchment[7], as witnessed by Dr Richard Kingsford during the Eastern Australian Arial Waterbird Survey (EAAWS).

"Down here in Victoria was so different to what we have seen elsewhere, over the last three weeks to the north, during our surveys. We could have been in a different country, with the wonderful green carpet of pastures and full dams everywhere. There were some of these dams with black duck and grey teal. This was so different to other parts of the survey. Waterbirds seem to be doing well in this the most southern part of the mainland.[8]"



[7] Australian Bureau of Meterology, http://www.bom.gov.au/

[8] Eastern Australian Waterbird Survey – 2019 Project Logs - Day 11 Sydney to Warrnambool

Habitat Availability

Waterfowl populations have demonstrated resilience to long-term hunting, they continue to demonstrate their incredible ability to respond to weather through enormous breeding events in response to rainfall. The fundamental requirement for healthy populations of waterfowl is habitat.

'The survival of many waterbird species in Victoria, despite ongoing reductions in wetland area and quality, and various forms of population harvest and control over the last 100+ years, reflects their high mobility, the fundamental importance of immigration and emigration (to and from wetlands outside of Victoria), and high breeding potential when optimal conditions prevail (inside and/or outside Victoria). From this perspective, most waterfowl species in Victoria are resilient.' [9]

In the driest inhabited continent on earth, where there is water, life abounds. Wetlands feed and shelter some of Australia's rarest and most vulnerable plants, animals and ecosystems.[10]

Saline Wetlands

In Victoria it is estimated that approximately one-third of natural wetlands have been lost through drainage since 1835[11]. This loss of natural wetlands is significant for the many species of ducks that use permanent coastal wetlands as refuges during summer, when inland wetlands dry out.[12]

We are lucky that we have coastal areas that support huge numbers of ducks on saline wetlands, ranging from the east: Mallacoota, Bemm River, Orbost/ Marlo, Lake Tyers, the Gippsland Lakes system (including Lakes Entrance), Lake King, Jones Bay, Lake Victoria, Lake Wellington, Lake Coleman and Lake Reeve; through to Port Phillip Bay and surrounding wetlands including the Eastern Treatment Plant, the Ramsar-listed Western Treatment Plant and Lake Borrie, Limeburner's Lagoon, Swan Bay, Lake Connewarre and the Lower Barwon River, Reedy Lake, and Hospital Swamp. In the west: Aire River, Curdies Inlet, Hopkins River, Lake Yambuk, and the many associated wetlands and estuary systems. In total Victoria has 120 estuary systems, 83 of which exceed 1 km in length.

Permanent saline wetlands support a greater abundance of total ducks than all other wetland types except waste stabilisation ponds (WSPs). The density is significantly greater on WSPs than all other wetland types.[13]

[9] *Developing a sustainable harvest model for Victorian Waterfowl,* D.S.L. Ramsay, D.M. Forsyth, M.J. Conroy. G. Hall, R.T. Kingsford, G. Mitchell, D.A. Roshier, C.J. Vellman, G. Webb, and B. Wintle, 2009.

[10] *Wetlands Australia National wetlands update issue 27*, Australian Government Department of the Environment, August 2015.

[11] *Wetlands of Victoria I. Wetlands and waterbirds of the Snowy River and Gippsland Lakes catchments*, Proceedings of the Royal Society of Victoria, A.H. Corrick and F.I. Norman, 1980.

[12] *Waterfowl in Australia*, 2nd edn, H.J. Frith, Angus and Robertson, Sydney, 1982.

[13] *What can a database compiled over 22 years tell us about the use of different types of wetlands by waterfowl in south-eastern Australian summers?*, C.G. Murray et al, 2012.

Wastewater Treatment Plants

The significance of wastewater treatment plants and their stabilisation ponds to ducks has been well documented[14], including in Victoria[15][16]. The importance of artificial wetlands to ducks has increased as a result of the loss of natural wetlands. Stabilisation ponds have been found to support significantly greater species richness, abundance and density of many waterfowl species, as well as a different waterfowl community to other wetlands (deep marsh, open water, permanently saline and semi-permanent saline wetlands)[17].

Victoria has 198 wastewater treatment plants[18], representing 4,875 ha of permanent wetlands habitat dispersed evenly throughout Victoria, where no hunting is allowed. These provide thousands of waterfowl important refuge.

Wastewater treatment plants have the capacity to hold large numbers of waterfowl. This has been documented in the ARI report *Waterbird monitoring at the Western Treatment Plant 2000-12*, 2014, which contains a 12-year data set, with a mean average of 33,500 game species. This year's Summer Waterfowl Count recorded 140,861[19] game species on the Western Treatment Plant. The Western Treatment Plant has regularly constituted more than half the birds counted during SWC, particularly in some recent years when fewer wetlands were surveyed state-wide. In 2019 78% of Australian Shelduck (51,672), 75% of Australasian (Blue-winged) Shoveler (10,437), 68% of Hardhead and Pink-eared Duck (11,511 and 36,089) and 65% of Pacific Black Duck (2,765) were counted[20].

Dams and Water Storages

Victoria has approximately 450,000 dams. The sizes of our dams range from major storages such as Dartmouth dam (about 4,000,000 Ml), Lake Eildon (about 3,300,000 Ml) and the Thomson dam (about 1,070,000 Ml) to small swimming pool-sized dams on farms or lifestyle properties[21]. These smaller, privately-owned dams are the most common type of dam in Victoria. There seems to be a direct relationship between the number of farm dams and the number and broods of Wood Ducks[22]. The vast number of farm dams in Australia represents a considerable increase in habitat for Wood Ducks since European colonisation and resulting agricultural expansion. Since farm dams continue to be established, populations of Wood Ducks should continue to increase[23].

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[14] *See Perspectives on wastewater treatment wetlands and waterbird conservation,* Journal of Applied Ecology, C.G. Murray and A.J. Hamilton, 2010

[15] *Distribution of foraging waterbirds throughout the Lake Borrie ponds at the Western Treatment Plant, Victoria (Australia),* The Victorian Naturalist, A.J. Hamilton and I.R. Taylor, 2005.

[16] *Balancing wastewater treatment objectives and waterbird conservation objectives and waterbird conservation at a major sewage treatment plant,* W.K. Steele, A.J. Hamilton, I.R. Taylor and R.H. Loyn, 5th World Water Congress, 10–14 September 2006. IWA Publishing, London, Beijing

[17] *Ibid* 10.

[18] Department of Environment, Land, Water & Planning website, accessed December 8, 2015.

[19] Victorian Summer Waterbird Count, 2019, P.Menkhorst, K.Stamation and G.Brown, June 2019

[20] *Victorian Summer Waterbird Count, 2019*, P.Menkhorst, K.Stamation and G.Brown, June 2019, ARI.

[21] https://www.water.vic.gov.au/managing-dams-and-water-emergencies/dams - Department of Environment Land Water and Planning

[22] *Farm dams, B.V. Timms,* 1980, in *An Ecological Basis for Water Resource Management*, ed. W.D. Williams, Australian National University Press, Canberra.

[23] *Maned Ducks and Farm Dams: a Success Story,* R.T. Kingsford, 1992, Emu 92, 163–169.

Together, Victoria's dams have a total storage capacity of about 13,400,000 Ml.

Victoria's water storage levels are currently at 50%, down 10% on 2018 and they are well above levels seen during the Millennium Drought 1990–2010. Melbourne Water storage levels are at 64%, up 1% on 2018 and well up from their 2009 low of 26%.[24]

These water storage levels can also be an indicator of water that is available to the Victorian Environmental Water Holder (VEWH) for environmental entitlements and to Catchment Management Authorities (CMA) deliver environmental water.

As the dams become shallower, they also become functionally more like natural wetlands[25]. The shallower water providing excellent habitat for all waterbirds including ducks.

Waterways

Victoria has 3,820 named waterways that total over 85,000 km. The top ten river systems by average flow are the Murray, Goulburn, Snowy, Ovens, Thompson, Yarra, Latrobe, Mitchell, Glenelg and Kiewa systems. These rivers provide ideal habitat for waterbirds, with many of them feeding extensive wetland networks.

Goulburn-Murray Water has 6,300 kms of channels, while not ideal habitat for all waterbirds when full, they become ideal habitat when the water level drops. All Victorian game species have been observed using the channel network, although they are a favourite of Pacific Black Duck and Australian Wood Duck.

Natural Wetlands

Over 23,000 natural wetlands exist across Victoria. Wetlands are still water environments, usually occurring where water collects in depressions in the landscape from either surface water or groundwater and can include swamps and lakes. Some wetlands are dependent on groundwater for their existence; others rely on surface water run-off or large floods from adjacent rivers.

The 2013 inventory of Victorian wetlands[26] recorded 23,739 natural wetlands covering 604,322 ha, and 11,060 artificial wetlands covering 170,613 ha.

Some wetlands naturally have water in them all the time, while others naturally dry out for short or long periods of time.[27]

Victoria's Ramsar Wetlands:

- Barmah Forest – 28,515 ha.
- Corner Inlet – 67,192 ha.
- Edithvale-Seaford Wetlands – 261 ha.
- Gippsland Lakes – 60,015 ha.
- Gunbower Forest – 19,931 ha.

[24] Bureau of Meteorology

[25] *Prioritizing Wetlands for Waterbirds in a Boom and Bust System: Waterbird Refugia and Breeding in the Murray-Darling Basin,* G. Bino, R.T. Kingsford, and J. Porter, 2015.

[26] Victorian Wetland Inventory - https://discover.data.vic.gov.au/dataset/victorian-wetland-inventory-current

[27] Department of Environment, Land, Water & Planning.

- Hattah-Kulkyne Lakes – 955 ha.
- Kerang Wetlands – 9,419 ha.
- Lake Albacutya – 5,731 ha.
- Port Phillip Bay (Western Shoreline) and Bellarine Peninsula – 22,645 ha.
- Western District Lakes – 32,898 ha.
- Western Port – 59,297 ha.
- Total Ramsar Wetlands - 306,859 ha.

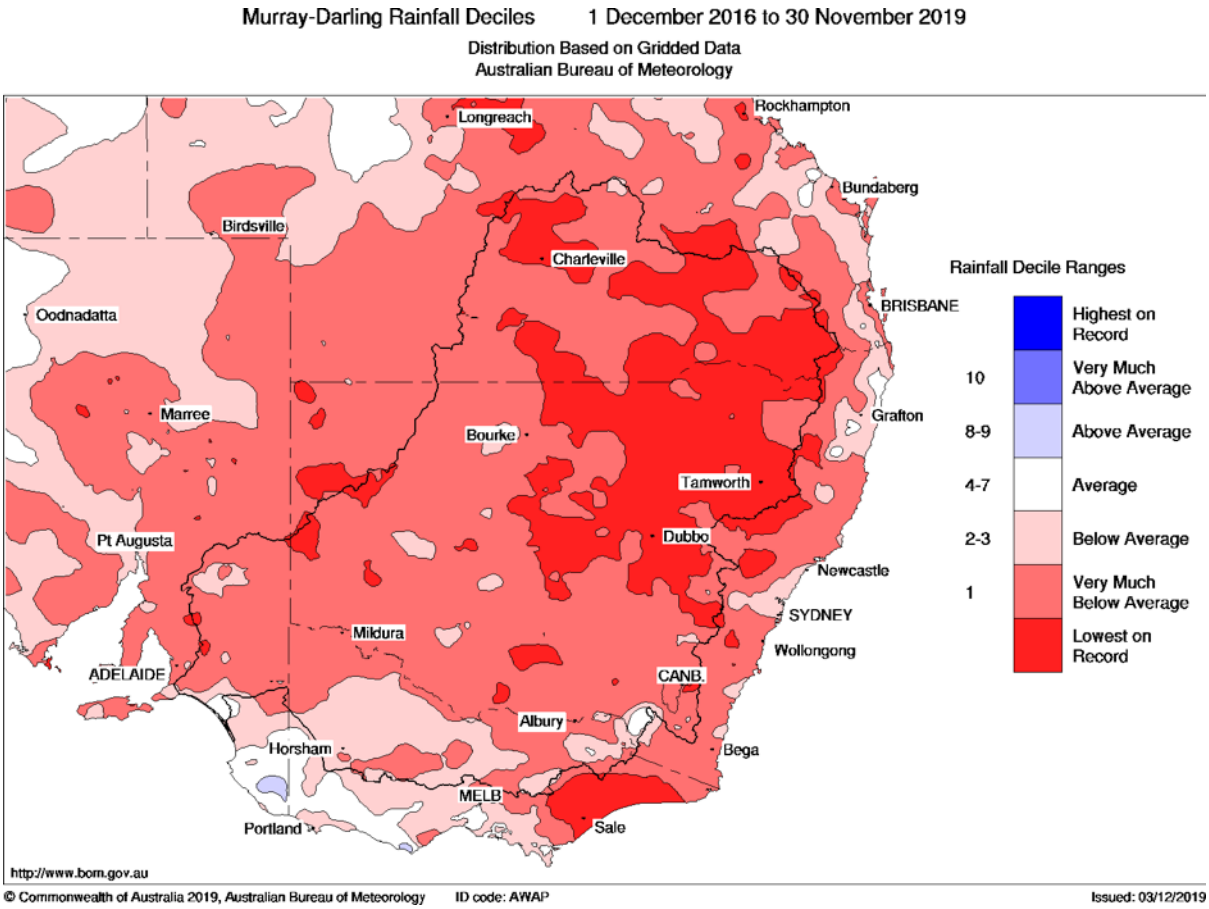
In summary, there are vast areas of wetland and suitable habitat within Victoria and across the country. Given the nomadic nature of Australian waterbirds, and the abundant habitat and refuge found within areas such as wastewater treatment plants, the evidence suggests that habitat availability, distribution and extent is far greater than estimated.

2019-2020 Annual Waterfowl Quota Report

New South Wales – Department Of Primary Industries

In 2019 the NSW DPI conducted surveys of waterfowl within the Riverina region of NSW. Drones were used to survey larger irrigation dams, wastewater treatment ponds and lakes, a helicopter was used to survey small farm dams in. The numbers of waterfowl observed from the sample of waterbodies was extrapolated to the Riverina region to establish an estimate of abundance for each species for the region[29].

The NSW Riverina is situated in the heart of the Murray Darling Basin, while being a critical area for waterfowl production it has experienced a prolonged period of drought.



[29] 2019-2020 Annual Waterfowl Quota Report to the Game Licensing Unit, NSW Department Primary Industries

All waterbodies and dams within the Riverina region were mapped and categorised by size (small, medium and extra-large) and combined with mapping layers for wastewater treatment ponds, natural lakes and wetlands

Estimating Waterfowl Abundance

To estimate total abundance for all waterfowl species, the observed numbers of waterfowl collected during the surveys are extrapolated to a known number of dams in the Riverina region (minus the estimated proportions of dry dams).

Small Dams

- 45,065 small dams were mapped
- 1252 were surveyed from a helicopter
- 16.8% were dry
- 44.6% of dams with water were occupied by at least one duck

Medium Dams

- 193 medium dams were mapped
- 18 were surveyed with a drone
- 69% were dry
- 100% of dams with water were occupied by at least one duck

Large Dams

- 168 large irrigation dams were mapped
- 16 were surveyed with a drone
- 72% were dry
- 98% of dams that had water and were occupied by at least one duck

Extra-large Dams

- 41 extra-large irrigation dams were mapped
- 5 were surveyed with a drone
- 78% were dry
- 100% of dams with water and were occupied by at least one duck.

Wastewater treatment ponds

- 39 wastewater treatment ponds were mapped
- 19 were surveyed with a drone

Results

Species	Estimated abundance in the Riverina region	Quota for 2019-2020 (assuming 10% harvest rate)
Grey Teal	172,292	17,229
Australian Wood Duck	72,816	7,282
Pacific Black Duck	110,051	11,005
Hardhead	3,656	366
Pink-eared Duck†	3,498	350*
Blue-winged Shoveler†	4,379	438*
Australian Shelduck†	7,143	714*
Chestnut Teal†	1,216	122*
Plumed Whistling-Duck†	22,260	2,226*

Despite the prolonged period of drought, the Estimated Abundance in the Riverina Region totalled 397,311 game birds.

Conclusion

Although the report contains the following statement, "The low numbers of ducks is likely due to the reduced availability of standing water across the Riverina region this year. The extensive irrigation channel network was not surveyed in 2019, incorporating the irrigation channel network will improve confidence in the estimated numbers", the number of gamebirds estimated is more than the average harvest of 373,229 in Victoria and much larger than the 118,761 counted during the EAAWS.

The results of the survey data indicated that common species such as Pacific Black Duck, Grey Teal and Australian Wood Duck were most likely to be found on small dams. These three species make up nearly 90% of the total number of waterfowl species that were surveyed in the Riverina, they also make up 88% of the annual harvest in Victoria.

All of these game birds, mostly on man-made waterbodies during a time of prolonged drought, what implications does that have for waterfowl management in Victoria?

Considerations

The NSW DPI survey looks at waterfowl numbers in the NSW Riverina, a small part of the Murray Darling Basin.

When we relate this to the estimated 450,000 dams in Victoria the numbers increase exponentially.

We believe that this critical information needed to be included in the "Considerations for the 2020 duck season" pack supplied to stakeholders, as it is designed for game management purposes.

Our position is that the GMA needs to consider this relationship with regards to potential numbers of ducks in the Murray Darling Basin and across the rest of the state of Victoria.

Eyre Basin

Two heavy rainfall events across the upper-Diamantina and Georgina River catchments from late January to March 2019 generated notable runoff in the Lake Eyre Basin. Over eight Sydney Harbours worth of water passed through Birdsville between the start of February and the end of June. Water first reached Kati Thanda–Lake Eyre in mid-March, with inflows peaking later in March and early June, before slowly receding.

The Lake Eyre Basin is one of the world's larger internally draining river systems, covering approximately 1.2 million square kilometres across South Australia, the Northern Territory and Queensland.

The Lake Eyre Basin contains large areas where river flow is unregulated. The creeks and rivers only flow for short periods following significant rainfall.

There are many areas of high conservation importance in the Lake Eyre Basin. Following inflows, many waterbirds flock to the lakes and rivers to feed and breed.

Flooded waterways support aquatic invertebrates, fish populations, a diverse frog community and rare plants. Some wetlands in the Lake Eyre Basin support fish known to reach 80 years old.

In 2018, annual rainfall was below average across much of the Basin and in parts of the south rainfall totals were in the lowest 1% on record.

Although 2018 was generally very dry across most of the Lake Eyre Basin the Diamantina River did flow and result in inflow to the lake.

Summer monsoon (1st Flood Event)

An active monsoon trough and a slow-moving low-pressure system caused heavy rainfall over the northern area of the Lake Eyre Basin between 29 January and 8 February.

Much of the northern parts of the Diamantina and Georgina catchments received more than 300 mm of rainfall during these eleven days. The rain gauge at Trepell Airport, located in the north of the Georgina River catchment, recorded 448 mm during this period.

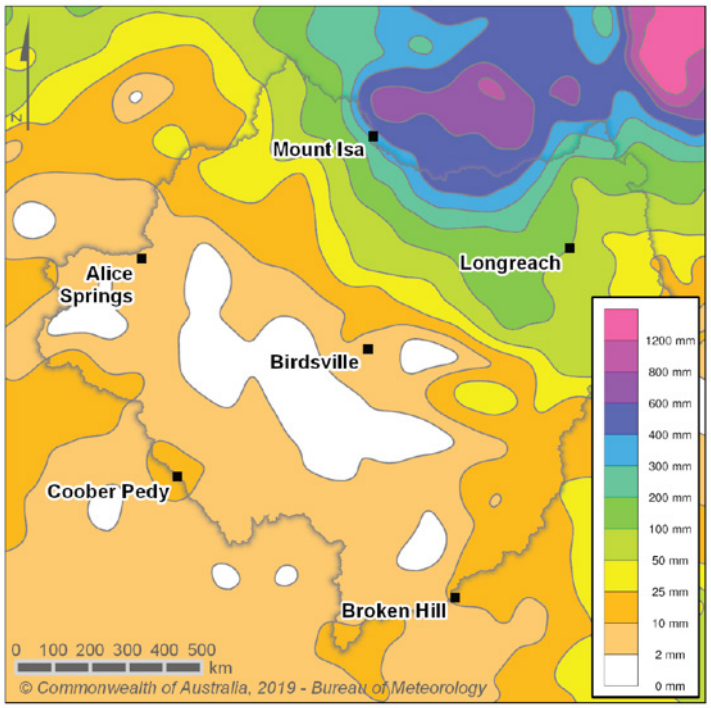


Figure 3. Total rainfall (mm) in the Lake Eyre Basin in January and February, 2019

On 15 February, the first of the flood water from the summer monsoon event reached Birdsville on the Diamantina River.

The Diamantina River at Birdsville Police Station gauge has a major flood level of 8 metres and the river level exceeded this from 20 February to 3 March.

On 22 February the Diamantina River gauge at Birdsville peaked at 8.15m, with a peak flow estimated of over 2000 cubic metres per second, surpassing the peak river heights of significant floods in 1999, 2000 and 2009—but falling short of the major flood of 1974 where it peaked at 9.45 m.

There is a less than 10 per cent chance of a flow like this occurring in any year. It was half of the largest flood (total volume) on record in 1974.

On 5 March, the start of the flow reached Poothapoota Waterhole. The flow peaked there on 9 March.

On 15 March, the first flows reached the northern tip of Kati Thanda–Lake Eyre.

This flow took 15 days to travel from the Diamantina Lakes to Birdsville, 12 days from Birdsville to Poothapoota and around 10 days from Poothapoota to Kati Thanda–Lake Eyre.

By late March, the water had receded in the Diamantina between Birdsville and the Goyder Lagoon, and the vast flood plain was 'greening', following the inundation of the preceding weeks.

Ex-Tropical Cyclone Trevor (2nd Flood Event)

During the last week of March, ex-Tropical Cyclone Trevor delivered a second wave of rainfall over a larger area to the north and east of the Lake Eyre Basin.

Over four days (26-29 March) Trepell Airport received 211 mm, Urandangi Airport received 165mm and Winton Airport received 153mm.

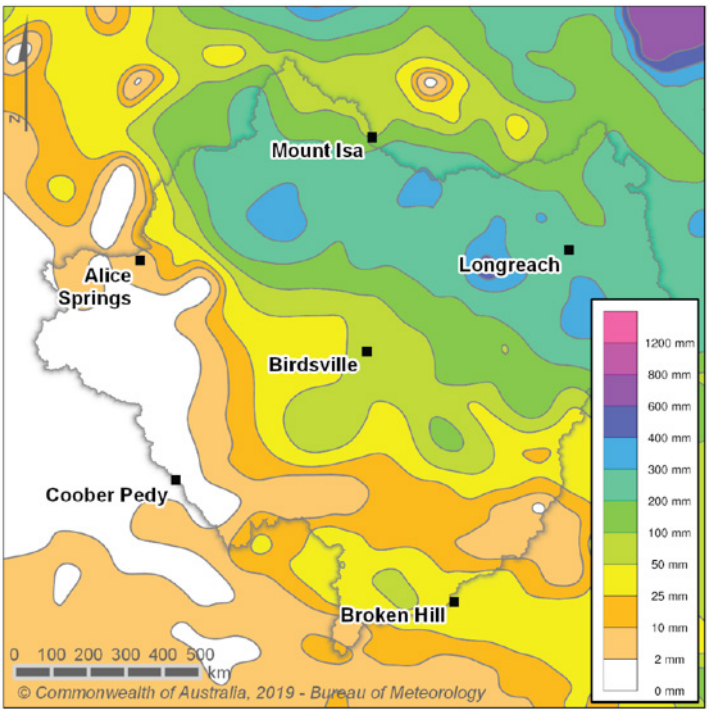


Figure 4. Total rainfall (mm) in the Lake Eyre Basin in March, 2019

In this flow, there was a greater contribution from the Georgina River and lesser from the Diamantina River compared with the first flow. Flow from both of these rivers ceased in July.

The Cooper also flowed in both flow events but did not contribute to Kati Thanda–Lake Eyre inflow.

The water level at Birdsville measured 2.4 m on 18 April and rose steadily to peak at 7.7 m on 29 April.

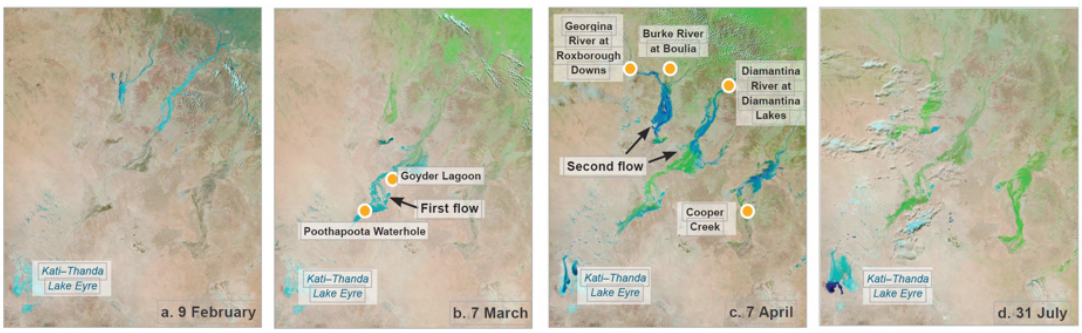


Figure 7. Flood waters in the Lake Eyre Basin from NASA Worldview (https://worldview.earthdata.nasa.gov/)

Georgina River and Eyre Creek catchments

The catchment drains an area of over 200 000 sq km. It rises to the northwest of Mt Isa with three main tributaries, the Buckley, James and Ranken rivers. Further inflow enters the system from numerous creeks and rivers, the two main tributaries being the Burke and Hamilton rivers. The Burke River drains the area to the north of Boulia and enters the Georgina River about 20 km upstream of Marion Downs, while the Hamilton rises to the northeast of Boulia and enters the Georgina River below Marion Downs.

The final gauge for this river system is at Glengyle Station. From there it's over 300 km (as the crow flies) to the Goyder Lagoon.

The January/February rain resulted in water level at Glengyle reaching about 3.5 m in the latter part of February. However, water didn't progress far past Glengyle. The rain from ex-tropical cyclone Trevor was much more significant here with the water level reaching 4.9 m early in March. The flow then tracked through the dry desert areas, finally reaching the Goyder Lagoon in early May.

Goyder Lagoon

Goyder Lagoon is located within an area of 2,684 square kilometres which has been identified by BirdLife International as an Important Bird Area (IBA) principally because, when flooded, it supports large numbers of waterbirds, with a total of 170,000 estimated from aerial surveys in 2002 and 420,00 in 2009.[33]

Lake Eyre Basin

Floodwaters drained through the Goyder Lagoon, part of the Lake Eyre Basin. Water flows from the lagoon into the Warburton River on its way to Kati Thanda-Lake Eyre—one of the largest saltwater lakes in the world.

The Lake Eyre Basin region covers approximately 1.2 million sq km of arid and semi-arid central Australia. That's 17 per cent of the continent—nearly five times the size of the UK! It stretches, north to south, from just below Mount Isa in Queensland to Marree in South Australia. From west to east, it extends from Alice Springs in the Northern Territory to Longreach and Blackall in central Queensland. This is the world's largest internally draining system.

A 'green lining'

While Kati Thanda-Lake Eyre didn't completely fill, this amount of water creates a desert oasis for a variety of birdlife, which breed on its islands and shoreline.

The floodplains of the Diamantina River and other channels in central Australia are also rejuvenated after years of drought.[31] [32]

[31] BOM - Queensland floods: the water journey to Kati Thanda-Lake Eyre - March 2019

[32] BOM - Flows into Kati Thanda–Lake Eyre, Water Focus Report - Autumn 2019

[33] BOM - Flows into Kati Thanda–Lake Eyre, Water Focus Report - Autumn 2019

Much of this habitat, including Goyder Lagoon are not covered by the Eastern Australia Waterbird Survey as it is outside of band 7.

Here is some of what the EAWS did find in the northern Eyre Basin:

Band 6

Lake Machattie (>18,000ha)

"A spectacular site, supporting thousands of waterbirds including Grey teal, pink eared duck, black duck, freckled duck, herons cormorants ibis and spoonbills, terns, black tailed native hens, pelicans and migratory waders."

Lakes Torquinnie and Mumbleberry

"They also supporting thousands of waterbirds – but not as densely distributed as on the Georgina river wetlands. We find moderate numbers of grey teal pink eared ducks, black ducks freckled ducks, migratory waders, egrets, herons, brolgas and avocets."

Band 7

"Our first target on survey band 7 is the Diamantina again – and there are several large claypans holding water, including Lake Uloowarranie. It's a shallow productive habitat and we find thousands of waterbirds – mainly pink eared duck, grey teal, wood duck, spoonbills and stilts."[34]

As these Channel Country wetlands inevitably dry out again, these birds – the adults that bred, and their surviving progeny – have to disperse out of the region.

In 2009 surveys performed by the Australian National University, University of New South Wales and Wetlands International confirmed and further quantified an emerging understanding of the role of Channel Country wetlands in sustaining waterbirds in Australia and in the flyway. These wetlands continue to provide extensive feeding and breeding opportunities sufficient to make a significant contribution to whole populations of many waterbird species.

These findings demonstrate the importance of widespread networks of inland wetlands, comprising complementary wetland types across multiple river systems. The role played by flood events in intermittently connecting these widely spaced and diverse arrays of important wetlands is a significant part of these critical ecosystems.[35]

[34] Eastern Australian Waterbird Survey – 2019 Project Logs

[35] Waterbird surveys in the Channel Country floodplain wetlands, autumn 2009, Australian Government Department of Environment, Water, Heritage and the Arts J. Reid, R. Kingsford and R. Jaensch February 2010

Sustainable Hunting Action Plan (SHAP)

Hunting organisations welcomed the launch of the Sustainable Hunting Action Plan (SHAP) 2016. While momentum with delivery of the SHAP has taken some time to build, the four objectives and underlying actions comprise a long list to deliver in four years. The value of the SHAP as an initiative not only provides clearly defined deliverables, it is an important mechanism for Government to mobilise and coordinate efforts across multiple agencies. It is a clear public statement of the Government's commitment to sustainable hunting in Victoria.

The role of Government in establishing this important initiative is acknowledged, and we thank all those involved with delivering the completed Actions, and for the progress on the Actions that are underway.

It is our firm position that the objectives of the SHAP delivers not only for sustainable hunting, but importantly for improved habitat through the series of practical, on-ground projects. We know these outcomes are sought by everyone with a genuine interest in healthy wetlands.

There is more to be done, that goes without question. We are concerned the continuous debate on waterfowl numbers takes away from the critical issues - being habitat, water, and the collection of meaningful data. There is a clear and common message about the declining and critical state of our wetlands, this is highlighted in the audit of State Game Reserves[36].

The SHAP doesn't solve the issues with the health of our wetlands, but it does define critical areas for focus, which provide practical outcomes that will improve our wetlands.

More is required to complete the delivery of the SHAP as we enter the fourth and final year. A number of Actions still remain to be completed to fulfil the objectives. History will judge whether the SHAP was overly optimistic, much has been achieved, momentum has been created and many great outcomes are evident.

Two key areas have been identified:

4.1.1 Undertake research, monitoring and evaluation — by developing a game species research strategy to better understand the distribution, abundance and recruitment of game species and the impact of hunting activity.

[36] An audit of Victoria's State Game Reserves, Game Management Authority May 2016

The Game Management Research Strategy sets the strategic framework, based on research, that is critical for effective game management. The ability to deliver a Game Management Research strategy is essential to drive investment and guide research programs in Victoria. Research required now and the longer this is delayed it will only add to the current debate. This in contrary to the expectations of the Government to move to take the politics out of game management decisions.

4.1.5 Undertake research, monitoring and evaluation — by implementing the Waterfowl Conservation Harvest Model (WCHM) to ensure the sustainable management of game ducks

The Conservation Harvest Model (WCHM) is an Adaptive Harvest Management (AHN) framework used for the management of waterfowl hunting, AHM has been used in North America since 1995. Best practice has recently been observed by FGA, and can contribute to the development of the AHM in the Australian context. It's acknowledged that AHM assumes a level of risk, however the critical risk is the detrimental effects on waterfowl population from overharvest.

A key requirement AHM is that stakeholders (including Ministers) must have confidence in the approach and its recommendations regarding season lengths and bag limits. The commitment to the WCHM made in 2018 by the Victorian State Government demonstrates they have confidence and commitment in AHM (Letter dd 14 November 2018).

These two Actions require urgent attention, as the approach to setting duck seasons we are faced with only serves to reinforce that action is needed to improve the process.

The momentum developed with the 2016-2020 SHAP provides the platform for the next version for 2021-2025. Learnings from the pilots and test projects already offer ways to enhance the development, design and delivery of the 2021-25 SHAP.

This progress must be applauded by all stakeholders with a genuine interest in the improvement and the health of our wetlands and season setting processes.

Recommendations

1. Implementation of the legislated hunting season with restrictions for 2020,
   - Season Opening: Saturday 4th April 2020 (modified)
   - Season Closing: Monday 8th June 2020 (modified)
   - Season Length: 66 days (modified)
   - Opening Times: Saturday 8:00am (ADST)
     Sunday 7:00am (AEST) (due to daylight savings)
     30 minutes before sunrise (all other times)
   - Bag Limit: Six (6) birds (modified)
2. Implementation of the Waterfowl Conservation Harvest Model (WCHM) using scientifically robust climate, abundance and harvest data from New south Wales, South Australia and Victoria as the key inputs.
   (Sustainable Hunting Action Plan Objective 4.1)
3. Improved monitoring of waterfowl abundance in Victoria using all available methods including aerial (UAV and Helicopter) and ground-based techniques.
   (Sustainable Hunting Action Plan Objective 4.1)
4. Tagging, banding and monitoring programs to better understand waterfowl movements and breeding cycles.
   (Sustainable Hunting Action Plan Objective 4.1)
5. Commitment to improving wetland habitat for waterfowl across the state of Victoria.
   (Sustainable Hunting Action Plan Objective 4.2)

Conclusion

Decisions applied to game management must be based on facts and data, not instinct, intuition, ideology, or prejudice.

Since 1958 FGA has worked collaboratively with government agencies and continues to strive for the development and implementation of a robust and effective management model for the harvest of ducks.

Field & Game Australia look forward to working with government agencies on the development and implementation of the Waterfowl Conservation Harvest Model.

Submission to Game Management Authority

Recreational Native Waterbird Shooting Considerations for 2020

By Regional Victorians Opposed to Duck Shooting Inc. on behalf of those around the state adversely impacted.

Regional Victorians Opposed to Duck Shooting Inc. is calling for the 2020 duck shooting season to be completely closed based on dire environmental conditions, significantly declining waterbird indices and a lack of impact studies of duck shooting on the growing numbers of the public by the waterways.

Summary

- All major indices for waterbirds show significant declines over time, well below long term averages.
- 2019 wetland area index lowest recorded since surveys began 37 years ago.
- Waterbird abundance strongly related to rainfall and wetland habitat availability.
- Most of Australia has experienced below to very much below average rainfall and hotter/drier times are predicted which will further dry out remaining wetlands.
- Waterbirds less widely dispersed.
- Little breeding recorded, with swans and ibis being responsible for 97% of it.
- Unreliable harvest data– a critical component in ensuring sustainability.
- Insufficient data regarding impact of shooting on native waterbird populations.
- Inability to control duck shooting or sufficiently monitor compliance.
- Lack of risk assessment re impact of duck shooting on families around the waterways.
- Lack of impact studies on tourism / other more popular forms of recreation hampered by duck shooting.

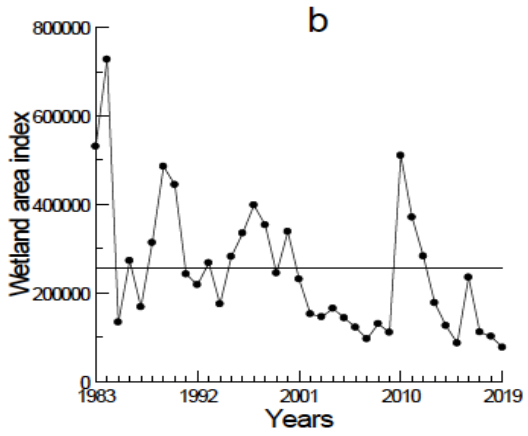
Introduction

Regional Victorians Opposed to Duck Shooting Inc. welcomes the invitation to submit comment for the second time. Evidence shows there is overwhelming reason to close the 2020 season. Previous Labor governments have closed seasons in 2003, 2007 and 2008 for less environmentally dire circumstances. With only 0.2 of one percent of the population shooting ducks, we submit this is GMA's opportunity to demonstrate independence to shooters and a respect for sustainability in recommending a season close.

Habitat, Distribution and Abundance

East Australia Annual Waterbird Survey "*the most significant piece of data on bird* numbers" *(Graeme Ford; GMA)*, is the most comprehensive, independent, professional scientific long term data set available.

There is a significant long term downward trend of all indices, continuing to be well below average with wetland habitats the lowest since surveys began 37 years ago. (*EAAWS)*



Variable	1983-2019 All years		1
	regression		r
Total waterbird abundance	decline	r^2=0.24, p=0.002	c
Wetland area index	decline	r^2=0.24, p=0.002	c
Breeding index	decline	r^2=0.12, p=0.041	r
Breeding species richness	decline	r^2=0.25, p=0.002	c

All major indices for waterbirds; total abundance, breeding index, number of species breeding and wetlands area index, show significant declines over time, well below long term averages.

The slight increase in bird abundances observed in the annual aerial survey is likely to be from birds being more visible in stressed situations (drought). Long term trends are more informative for predicting population status than year to year fluctuations (*as per p 35 & 42 of considerations document*).

Victorian storage levels have already decreased by 10% and are likely to decrease further with ongoing hot dry spells predicted, further stressing habitat for already struggling bird populations.

Reduced wetlands across states mean there is limited opportunity for large scale movement between north and south. This means birds which have sought refuge in Victoria's remaining wetlands will literally be "sitting ducks" for shooters if a season goes ahead, significantly impacting Australias native waterbird populations.

Environmental Conditions

The dire situation of plummeting habitat, breeding and abundance indices, is further exacerbated by exceptionally dry weather with significant rainfall deficiencies and warmer temperatures in 2017/2018, set to continue into 2019.

Across the country, unprecedented drought and environmental conditions are adversely affecting our native waterbirds, many species unique to our country.

The Murray Darling Basin - a critical breeding habitat for waterbirds - has experienced its worst drought period in 120 years and many critical wetland systems in the Basin are dry.

The future is grim, with experts predicting worsening climatic conditions and worsening drought across Australia. The Bureau of Meteorology, the CSIRO and any number of scientific bodies are pointing out that climate change will produce more frequent and severe droughts in the years ahead. (*Michael Rowland for ABC News Breakfast July 2019*).

- https://www.abc.net.au/news/about/backstory/news-coverage/2019-07-20/australias-drought-crisis-is-still-a-real-and-ongoing-threat/11321564
- https://edition.cnn.com/2019/01/31/asia/australia-heat-wave-analysis-intl/index.html
- https://www.haaretz.com/science-and-health/MAGAZINE-sheer-speed-of-global-warming-is-decimating-birds-say-scientists-1.6302093
- https://www.smh.com.au/environment/conservation/waterbirds-at-risk-as-irrigation-saps-floods-in-murray-darling-wetland-20180702-p4zp09.html
- https://www.birdlife.org/worldwide/news/how-will-climate-change-affect-bird-migration-our-scientists-explain
- https://www.australiangeographic.com.au/topics/wildlife/2018/11/going-extinct-by-neglect-the-state-of-australias-threatened-birds/

Critical Sustainability Factors

"To effectively manage game species it is important to quantify the numbers harvested" (ARI / GMA)

- Insufficient and Unreliable Data of Bird Numbers Shot.

I. Estimates of numbers of birds shot are not only based on a small number of shooters then extrapolated out assuming the entire duck shooter base would be same, but reliant on shooters' memories and honesty. "*Estimates of total harvest should be interpreted with caution*" (*page 25 of Harvest Estimates)*

II. As confirmed by Graeme Ford CEO GMA, Estimates do not include birds shot and left behind including protected species, found most years by the public. As most waterways are not monitored, the true number of birds shot including protected species is likely much higher.

III. Harvest estimates also miss the secondary ripple effect of shooting on bird populations. Otherwise healthy birds of breeding age are shot, reducing the chances of population recovery. Monogamous pairs are impacted, resulting in surviving partners unlikely to recover and death of offspring.

- No account is given to the impact of duck shooting to migratory birds who are particularly vulnerable to climate change and disturbance. Shooting disturbance impacts their ability to feed and rest prior to their long journeys. Migratory birds are suffering particularly high levels of decline and Australia are under numerous International obligations to protect them (https://www.environment.gov.au/biodiversity/migratory-species/migratory-birds).

- Lead is still used in duck shooting despite being illegal (as reported most years). Lead is extremely toxic to ecosystems, animals and people particularly women and children who consume even tiny traces. "*The literature suggests that significant insult to the brain of children occurs at very low levels and medical intervention with chelation fails to reverse such effects*". (emedicine.medscape.com/article/1174752) Until this serious health and safety risk can be resolved, further shooting seasons should be ceased under the precautionary principle.

- Birds are twice as vulnerable to climate change as mammals, an international team of scientists has concluded after checking 481 species in 987 populations around the world (*Global Change Biology, Zoological Society of London).*

- Non – compliance. It is clear, whether authorities are present or not, duck shooting is not controllable. Some examples of the magnitude of waterbirds and protected species which are not accounted for in authorities "harvest statistics" are as follows. Sadly this is likely the tip of the iceberg as the vast majority of areas where duck shooting is allowed, are not monitored.

    - ⇒ Box Flat 2013 "*The bodies of about 760 game ducks and 155 non-game birds were left on the water at the Box Flat flood plains near Boort. The shooting happened on opening weekend of duck season"*. (ABC March 2013)
    - ⇒ Lake Toolondo 2016, "*The Andrews government is headed for a showdown in the courts over the illegal shooting of dozens of rare and threatened birds during the opening of duck season. The shooting occurred despite the presence of Victoria police and authorized compliance officers*". (The Age April 2016)
    - ⇒ Kerang 2017, "*Another 437 birds have been recovered this week including 44 threatened freckled ducks from last weekend's massacre at the marshes in northwest Victoria, recognized as a RAMSAR wetland of international importance. The total number of illegally shot freckled ducks now stands at 112. The latest find takes the total number of birds gunned down in the opening weekend shooting spree to 1,247 and this was from just one of Victoria's wetlands. What happened on other wetlands?". (Medianet March 2017)*
    - ⇒ *This year (2019) despite record low numbers of duck shooters, over 30 instances of hunting / firearm related offences were reported just at the few waterways authorities happened to be at on opening weekend.*

These photos show the reality faced by rural families and tourists during and after duck shooting.

Insufficient Regulation and Monitoring.

According to Arthur Rylah Hunters Bag Survey Reports;

- In 2017 hunters' bags were checked at only 31 wetlands (out of thousands) "with some level of coverage". Only a handful of wetlands were checked by GMA for wounded / unretrieved birds. Even just at these few, 18 birds were found including 9 dead swans and 2 dead pelicans.

- In 2018 bags were checked at only 19 wetlands and only one wetland was checked for wounded / unretrieved birds.

- In 2019 no wetlands were checked for wounded / unretrieved birds.

Birds left behind after duck shooting; including penguin, musk duck and pied cormorant (protected species). Picture Kim Wormald.

In both the 2017 and 2018 reports, Arthur Rylah Institute clearly state that "Estimating the daily take is an important component of assessing the impact of the duck season on populations of game bird species" and that the survey "needs to include a larger number of wetlands, more evenly spread across the State". This advice has not been heeded.

GMA reported 1300 duck shooters were at the waterways they monitored on opening weekend. Latest figures however report 10,000 duck shooters were active on opening weekend. If these figures are correct, it shows the magnitude of the unmonitored areas and likely much larger problems associated with non-compliance which went unreported.

Other Relevant Considerations

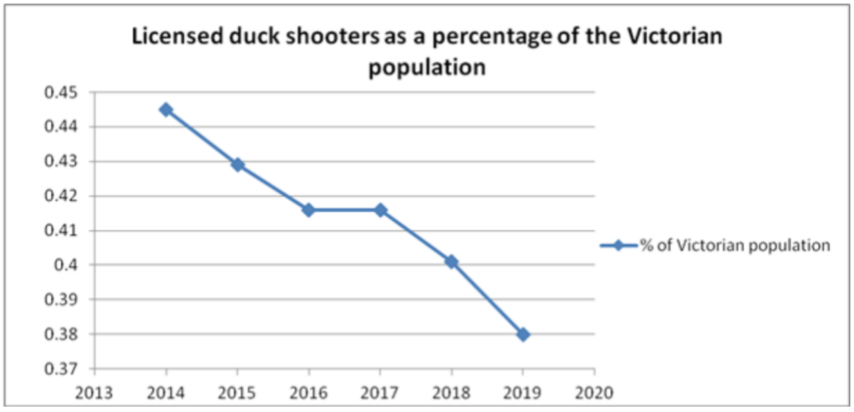
The Wildlife Act was put in place over 40 years ago. Since then there has been significant change;

- Significant biodiversity loss. Of the 1870 globally threatened bird species, 75% have been adversely impacted by human activity including hunting *(State of The World's Birds 2018*). Sadly Australia is one the worst offenders in the world when it comes to general species extinction and Victoria has the highest number of threatened species by sub region in Australia. With over 45% of our bird species unique to Australia, including our native waterbird species shot each year, they require urgent protection at the few Victorian areas there is water.

- Animals have been found to be sentient beings. There is much evidence that birds feel pain, fear and sorrow. Ballistics experts advise at least one in four birds shot will not be killed outright. The cruelty involved in the nature of shotgun pellet dispersal is unavoidable and one of the main reasons other states have banned duck shooting. Until this critical aspect is rectified (important to 98% of Victorians according to Labor's *Animal Welfare Action Plan*), a further season must be halted.

- Changes in recreational interests. There is significant and growing interest in nature based activities such as walking, running and cycling (*Marsden Jacob 2016*). Bushwalking #8 in Ausport's latest Top 20 (hunting didn't rate) is a popular activity for tourists (*Tourism Research Australia Visitor surveys*). These activities are hampered by duck shooting occurring in the same vicinity.

- Duck shooter numbers are declining and now make up less than 0.38 of one percent of the population. Around half this tiny number are inactive.



- Rural economic pressure. Agriculture is becoming less reliable due to climate change and market price fluctuations. Manufacturing is similarly unpredictable. Rural Victoria must look to a new economic solution or face continuing financial decline (Auditor General's *Report followed by SGS Economics and Planning 2016 and 2018*). The solution is nature based tourism.

- Tourism contributes more to the Australian economy than agriculture (agriculture, forestry and fishing), employs 1 in 19 Australians and supports 1 in 8 businesses and for the fifth consecutive year, real growth in tourism GDP has outpaced national GDP growth (Tourism Satellite Account). Nature based tourism is the fastest growing component (Tourism and Transport Forum 2017) bringing jobs and cash with it. Sadly, whilst many Victorian rural communities are rich in birdlife and wetland habitats which could attract the growing numbers of nature- based tourists, only 16% of would-be holiday makers are not deterred by shooting (The Australia Institute 2012).

  Consider Gannawarra with its 14% structural unemployment rate and high take up of social security. The Kerang RAMSAR wetlands of international importance could be a tourism mecca providing much needed jobs and revenue if it weren't for duck shooting.

- Rural population increases require safety considerations and jobs. More people now live around waterways where shooting takes place. Aside from having the right to safe and peaceful enjoyment of their properties, nature based activities and tourism- already worth $7.4 billion and 71,000 jobs to Victoria *(Marsden Jacob 2016)*- could provide these people with much needed opportunities.

As rural communities have expanded, no consideration has been afforded those who live near waterways, of noise pollution or impacts to children, animals and livelihoods of duck shooting in close proximity.

Conclusion

Based on the significant continued long term decline of native waterbird indices, the hotter and drier environmental pressures set to continue and the inability to control duck shooting, the 2020 season must be closed.

This is notwithstanding the lack of risk assessments of the impacts to rural communities.

Thank you for allowing us to comment. We hope to see a sensible recommendation by GMA to close the 2020 season based on the overwhelming facts and evidence.

Regional Victorians Opposed to Duck Shooting Inc.

Regional Victorians Opposed to Duck Shooting Inc. are a not for profit association incorporated in April 2018. Now with over 4000 supporters, consisting largely of those who live or work around Victorian waterways and are directly adversely impacted by duck shooting, our purpose remains, to bring awareness of these impacts which have gone unrecognized, and to promote a better way for our waterways. Click here to see some of what rural people said.

References

- State of The World's Birds 2018
- GMA License Statistics & 2020 Season Considerations
- Victoria's Outdoor Economy Marsden Jacob 2016
- Tourism Research Australia last three years of Visitor Survey datab
- Tourism Satellite Account 2018
- SGS Economics & Planning Analysis 2016 & 2018
- Tourism & Transport Forum 2017
- Global Change Biology, Zoological Society of London
- Submission to Regulatory Impact Statement for Victoria's Draft Wildlife Regulations 2012 -The Australia Institute
- Centre for Ecosystem Science Annual Aerial Waterbird Survey's
- The Arthur Rylah Institute Hunter Bag Surveys 2017, 2018 & 2019
- Ecosystems Across Australia are Collapsing under Climate Change – The Conversation 5/7/18
- Waterbirds at Risk as Irrigation Saps Floods in Murray Darling Wetlands –Sydney Morning Herald 4/7/18
- Sheer Speed of Global Warming Decimating Birds Say Scientists – Haaretz correspondent 23/7/18

"Victorians and visitors from interstate and overseas seek to enjoy our wildlife"

"Victoria's native wildlife are a unique and important part of the landscape.

"The Victorian government is committed to conservation of Victoria's wildlife"

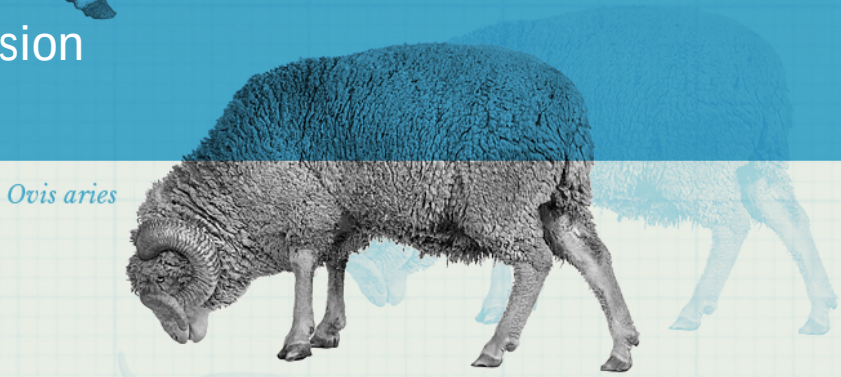
Lily D'Ambrosio, Minister for the Environment

RSPCA Victoria

2020 duck hunting season consultation

RSPCA Victoria submission

13.12.2019



rspcavic.org

Introduction

RSPCA Victoria appreciates the opportunity to provide a submission to the Game Management Authority (GMA) on our suggestions for modifications to the 2020 duck season. In this submission we will outline the reasons we believe the 2020 season should be cancelled.

National RSPCA policy

RSPCA Australia is opposed to the hunting of any animal for sport as it causes unnecessary injury, pain, suffering, distress or death to the animals involved.

Climate

Current climatic conditions as well as the forecasted conditions from January to March will not support sustainable hunting. Dry and drought conditions, higher temperatures and lack of available water all significantly impact waterbird sustainability. The following information from the Bureau of Meteorology (accessed 9 December 2019) should be considered when determining whether to hold a 2020 season:

- Drier than average January to March 2020 likely for eastern Australia.
- Summer daytime temperatures are very likely to be above average across Australia.
- While the remainder of December is likely to be drier than average for most locations, the rainfall outlook for January to March 2020 suggests drier conditions are likely in the east.
- Several months of above average rainfall would be needed to see a recovery from current long-term rainfall deficiencies.
- Victorian water storage is at 49.8% which is down 9.7% from last year.
- Mostly low streamflows are likely for November 2019 to January 2020.
- The past three years have seen dry conditions over much of eastern Australia.
- Rainfall for the 22 months from January 2018 to October 2019, and for the 34 months for January 2017 to October 2019, has been the lowest on record for the Murray–Darling Basin and for New South Wales respectively.
- In Victoria, West Gippsland and East Gippsland each had their driest 34 months on record to October 2019.

- Storage volumes in the northern Murray–Darling Basin continue to decline, reaching a combined volume in mid-November of 6.7% of capacity, which is 1.6% lower than at the lowest point during the Millennium Drought.

- Nationally, Australian rainfall for January to October 2019 was 34% below average, the equal second lowest on record and the lowest since 1902.

Across Eastern Australia the overall abundance, breeding index and breeding species richness of waterbirds are positively related to available habitat. Therefore declines in wetland area are likely to result in declines in waterbird abundance, breeding and breeding species richness.

As acknowledged by the GMA, the Murray-Darling Basin is a critical area for waterfowl production and therefore, the lower storage volumes in the basin are of particular concern for the sustainability of waterbirds.

RSPCA Victoria recommendation:

Based on current dry conditions and a poor climate outlook over summer resulting in a lack of available habitat and impacts on breeding, the 2020 duck hunting season should be cancelled.

Game bird abundance

RSPCA Victoria continues to be concerned by the data provided in the Aerial Survey of Wetland Birds in Eastern Australia year on year which demonstrates the dire conditions that the wetland birds are facing. Specifically, we were concerned to note:

- That the game species abundances are well below long term averages, in some cases by an order of magnitude.

- Waterbirds were concentrated on a small proportion of wetlands and less widely dispersed than in the previous year; 11 wetlands supported more than 5,000 waterbirds representing 50% of the total abundance. None of these occurred in the Murray Darling Basin reflecting the decline in habitat availability.

- The Australian Wood Duck, Chestnut Teal, Grey Teal and Pacific Black Duck, which together made up 97.9% of the game species found in hunters' bags on opening weekend in 2019 all continue to show long term declines in their abundance.

- Wetland area index was the lowest since surveys began.

- All major indices for waterbirds (total abundance, breeding index, number of species breeding and wetland area index) continue to show significant declines over time.

Based on the data in the Aerial Survey of Wetland Birds in Eastern Australia we believe that it is not possible to undertake sustainable hunting in 2020.

RSPCA Victoria recommendation:

Due to the long-term declines in game bird abundance the 2020 duck hunting season should be cancelled.

Animal welfare

RSPCA policy, supported by all RSPCA member societies, supports a ban on duck hunting. However, RSPCA Victoria recognises that this is a legal activity currently supported by both major parties in Victoria. Therefore, if hunting is to continue then we suggest the following initiatives to substantially reduce the negative welfare impact on ducks during open seasons.

RSPCA Victoria would like to reiterate our concerns regarding the welfare of animals in hunting. Duck hunting using a shotgun causes inevitable pain and suffering as not every bird is killed outright. The exact percentage of water birds that are wounded and left to suffer (i.e. are not retrieved) through recreational duck hunting is very difficult to determine with certainty as there has been no recent studies of wounding rates of game birds in Victoria. Historical data has reported wounding rates between 14% to 33%.[1] Assuming a conservative figure of 10% and using the reported total harvest figure of 238,666 from the 2019 season this would mean that nearly 24,000 ducks were wounded and not killed outright. These numbers are unacceptable, and wounding rates need to be determined and addressed.

Determining wounding rates will allow a baseline to be set and will enable testing of different interventions to identify those that would substantially reduce wounding rates and therefore improve duck welfare.

It is important for individual hunters to understand their maximum effective shooting distance. A reduction in range eliminates shots that have a low probability of killing and a relatively high risk of wounding. However, without mandatory practical shooting accuracy testing, many birds will continue to be wounded.

[1] https://kb.rspca.org.au/knowledge-base/what-are-the-wounding-rates-associated-with-duck-hunting/

We continue to have concerns that the Shotgunning Education Program (SEP) is voluntary and there is a cost to participate. In addition, we are equally concerned that the Waterfowl Identification Test (WIT) only needs to be taken as a once off. While duck hunting continues to be legal in Victoria, at a minimum the SEP should be made mandatory and regular WITs should be undertaken to reduce the risk of shooters killing incorrect species including those that are vulnerable.

RSPCA Victoria recommendations:

1. Undertake research to determine the wounding rate of ducks during the open season
2. Make the Shotgunning Education Program mandatory
3. Introduce an annual practical shooting accuracy test
4. Introduce into regulations the maximum distance at which birds can be shot at
5. Introduce an annual waterfowl identification test

Duck hunting survey

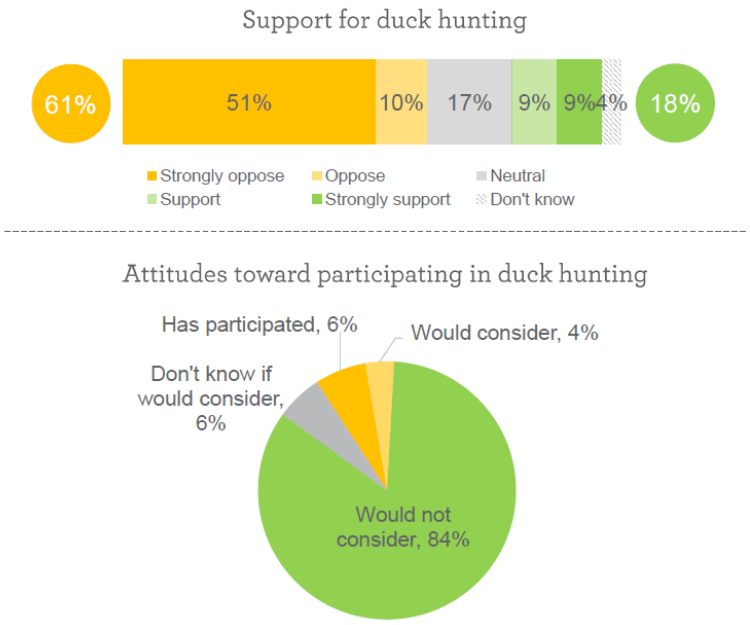
During August and September 2019, RSPCA Victoria engaged market research firm Colmar Brunton to undertake a survey and analysis of Victorian's attitudes to duck hunting and their visitation to areas where duck hunting occurs. This survey was part of a larger RSPCA Victoria brand-tracking survey that is regularly conducted.

Data was collected from a representative sample of 637 Victorian respondents. The data was weighted to reflect Australian Bureau of Statistics proportions of the Victorian population according to the 2016 Census.

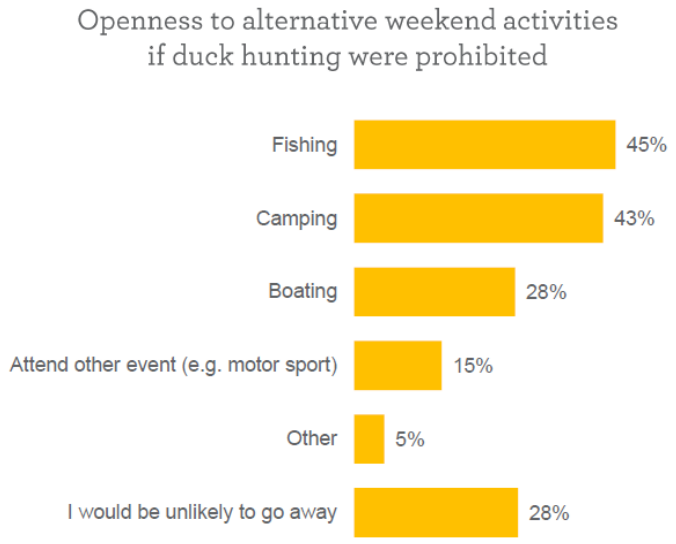
Results

Key results from this survey are outlined below:

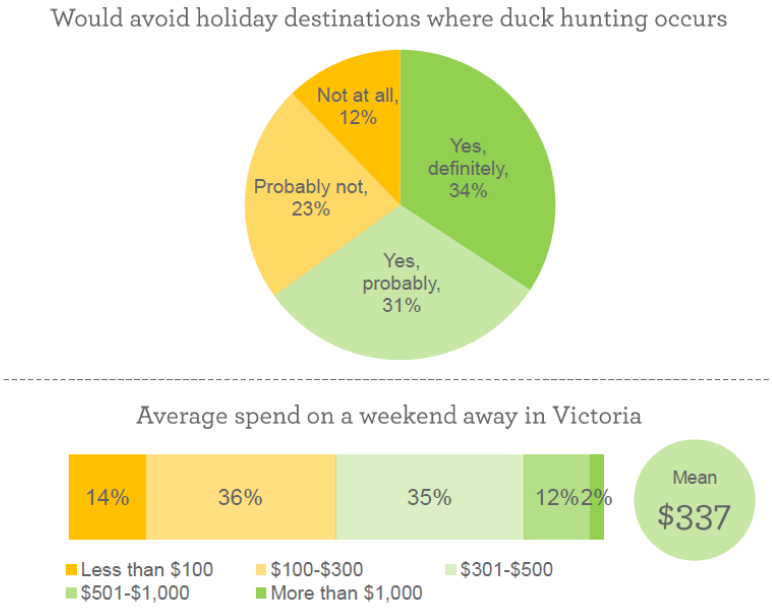
- One-half (51%) of Victorians strongly oppose duck hunting and a further 10% oppose it, with less than one-fifth (18%) expressing support.
- The majority (84%) of Victorians would not consider participating in duck hunting. One in twenty (6%) have participated, and 4% have not participated but would consider doing so.



- Among those who have participated in or would consider participating in duck hunting, over two-fifths would be likely to go away for a weekend to fish or camp instead if it were banned (45% and 43% respectively).
- Around one-quarter (28%) said they would be unlikely to go away if they could not participate in duck hunting, leaving almost three-quarters (72%) who would be open to going away regardless.



- Two-thirds (65%) of Victorians would probably or definitely avoid holiday destinations where duck hunting occurs, while one-third (35%) would not necessarily reject these places.
- Those who would avoid places where duck hunting occurs report spending an average of $337 for a weekend away in Victoria. One-third typically spend $100 to $300, and a similar proportion spend $301 to $500 (36% and 35% respectively). This did not differ significantly between demographic groups.



BirdLife Australia statement to the Game Management Authority stakeholder forum

November 19th 2019

BirdLife Australia

BirdLife Australia is an independent science-based bird conservation organisation. Our vision is that native birds are protected, valued and enjoyed by all Australians. We support research, conduct monitoring and run citizen science programs to inform and guide conservation of birds and their habitat.

We are the nation's primary repository of information on bird ecology and conservation, periodically reporting on the status and trends in Australia's bird taxa. Our programs and strategy are guided by advice from a Research and Conservation Committee of leading ecologists and ornithologists.

Following many years of consideration, BirdLife Australia has adopted the position that recreational waterfowl hunting should not be allowed in Australia and its Territories.

Long term trends in the ecology and conservation of wetlands and waterbirds

Wetlands are key habitat for waterbirds including ducks. A 2012 review found that two thirds of Victoria's wetlands have been lost since settlement, and the State's remaining wetlands continue to be threatened by development, lack of water, pollution, poor land management, and climate change. The ecological condition of wetlands varies as a result of these pressures, both past and present. [1]

Victoria's changing climate adds greatly to the pressure on the ecological condition of Victoria's wetlands and waterbird habitats, affecting things like water availability and breeding conditions.

[1] Environment Defenders Office 2012, Protecting Victoria's Wetlands, Environment Defenders Office (Victoria), December, Carlton.

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Annual surveys show long term declines since 1983 in waterbird indices including abundance, breeding and breeding species richness across eastern Australia. Most game species abundances were well below long term average.[2] No game species has shown any signs of recovery from these declines. National waterbird indices being developed by BirdLife Australia and available in 2020 are supporting the trends evidenced in Porter *et al* 2018, indicating long term and sustained declines in waterbirds.

Maintaining and improving monitoring of wetland extent and condition and waterbird numbers and ecology is crucial to conservation efforts. BirdLife Australia calls for a sustained commitment to systematic monitoring for the effects of wetland management on waterfowl across Victoria including at all game reserves.

A precautionary approach is the key

The extinction process begins with a species' decline, perhaps gradually, and perhaps only towards the edge of its geographic range. Often, incipient extinction processes are driven by several threatening processes occurring in concert or over time. Recognising the early warning signs is crucial to effective and efficient species conservation as the further the decline of a species is allowed to progress, the more difficult and expensive is its conservation.

With clear signs of long-term decline and with multiple pressures on waterbirds, including hunting of game species, BirdLife Australia holds that the precautionary principle inherent in international, national and State conservation agreements and legislation must be adhered to.

2020 season outlook

The outlook for hotter than average conditions over summer, lower than average runoff and the outlook for lower than average rainfall over most of the country, taken with water storage levels below this time last year, suggests strongly that waterbirds will be under extreme pressure at the time of the proposed 2020 duck season.[3]

Severe drought conditions are occurring across eastern Australia and taken with the existing pressures on waterbirds and their habitats, BirdLife Australia believes that

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[2] Porter JL, Kingsford RT and Brandis K 2018, Aerial Survey of Wetland Birds in Eastern Australia - October 2018 Annual Summary Report, UNSW, Sydney.

[3] Bureau of Meteorology: http://www.bom.gov.au/climate/outlooks accessed 19 November 2019

the warning signs are clear and the addition of the artificial pressure of recreational shooting of game species should not be countenanced for the 2019 season.

In saying this we note the current Senate inquiry into Australia's faunal extinction crisis[4] which underlines the need for all responsible authorities and stakeholders to take a more active and precautionary approach recognising the early declines of species and ecosystems to avoid the costs and the ecological impoverishment of extinction.

Birdlife Australia's position

BirdLife Australia holds that the 2020 duck season in Victoria should not occur. This will be consistent with our nation's commitment to taking a precautionary approach to nature conservation. It will afford respite to waterbirds attempting to take refuge in Victoria from appalling drought conditions (climate change) in other States and territories. It will also provide breathing space during which trend data and outlook data can be examined coolly to develop forward-looking policy on duck hunting in the context of long-term wetland and waterbird declines, and of Victoria's changing climate.

4 https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Faunalextinction

SHOOTING SPORTS COUNCIL OF VICTORIA Inc.
PROMOTING THE IMAGE OF AND COMMUNITY PARTICIPATION IN SHOOTING SPORTS

PO Box 2115,
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Mr. Simon Toop
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27/11/2019

Dear Simon,

Submission on the Proposed 2020 Duck Hunting Season

The Shooting Sports Council of Victoria is grateful for the opportunity to make this submission on the 2020 Duck Hunting Season.

We note that this submission is made without any reliance on the trends that are part of the NSW University Aerial Survey being available at this time, and that the impact of the Aerial Survey on bird habitat and availability may alter this submission.

We have recently observed bird abundance and distribution within the Kerang to Echuca area. This indicated numbers of game bird species on the dams and irrigation channels within that area. These numbers were not large but birds observed were healthy and showed good plumage and body weight.

During our observation of the Kerang area there was good levels of water within the irrigation channels, and the farm dams had water in them but not at a high level. No State Game Reserves were observed and none of our comments can be attributed to SGR's.

All birds observed were in pairs or groups, there was no observance of fledglings on the abundant water to the irrigation channels.

Council has concluded that a Duck Hunting Season for 2020 is sustainable; we would however recommend some variations to the season due to the current situation of a lack of research material and unpredictable weather patterns in the state. These variations include, but are not limited to;

- Reducing the season, this could be achieved by postponing the opening date by 4 weeks until Saturday April 18 2020, which avoids the Easter holiday period.
- Reducing the bag limit, the proposed limit should be modelled on the 2019 season limits which were 4 birds per day on the opening weekend and a 5 bird limit per day for the remainder of the season.

- We also see merit in increasing the bag to include extra numbers of Wood Duck being allowed, as these birds are bordering on pest status within the farming districts within the state.

Council expresses its concern of the inclusion of anti duck hunting groups to the stakeholder meetings to discuss a 2020 duck season. These groups are known to be staunch vocal oppossers to the duck season and therefore have no valuable input to this process. It is also of concern that the principle objective of the Game Management Authority is to administer game management within Victoria. The licensed game shooters of this state expect the GMA to provide this service and have no cause listening to groups that can offer no rational arguments except that the season and duck shooting, in total, be banned.

Council would be pleased to discuss this matter, in greater detail with the Game Management Authority.

Yours faithfully,

David Croft
Secretary SSCV

33(1)

Graeme D Ford (DEDJTR)

From: 33(1)
Sent: Thursday, 19 December 2019 8:59 PM
To: Graeme D Ford (DEDJTR)
Subject: VIC waterfowl season 2020

Hello Greame.
I'd like to express my concerns for the 2020 water fowl season.
South Australia has just been announced and has alot of ViC hunters very Concerned especially being only specific species available to hunt.

As I have invested alot of money into this Vic season with a new Waterfowl hunting business. Hunting Apparel and accessories

I plead to you to at least not modify the species for the daily bag.

I understand if you wish to reduce the bag limit but I can't see justification to only have one Mountain duck in the daily harvest like S.A.

Thank you for reading this email.
I look forward to an announcement after Christmas and hope the VIC has a better outcome.

Get Outlook for Android

Graeme D Ford (DEDJTR)

From: 33(1)
Sent: Wednesday, 18 December 2019 7:24 AM
To: Graeme D Ford (DEDJTR)
Subject: Fga proposal

To Whom it May Concern,

I am writing today in relation to the recommendations presented on 13/12/19 by Field and Game Australia in the submission for a 2020 Victorian Duck Season.

Field and Game Australia DO NOT represent me or my desires for a FULL, LEGISLATED 2020 duck season, 12 weeks long, with 10 ducks including no more than 2 Blue Wing Shoveler per day starting on the 3rd Saturday in March at the legislated starting time. I was not consulted, current board members were not even consulted.
I wish to make that point VERY clear.
FGA has taken liberty of its claims to be a representative organization.

Regards, 33(1)

Sent from my iPhone

Graeme D Ford (DEDJTR)

From: 33(1)
Sent: Saturday, 14 December 2019 5:26 PM
To: Graeme D Ford (DEDJTR)
Subject: 2020 Victorian Duck Season

Dear Graeme

I am writing today in relation to the recommendations presented on 13/12/19 by Field and Game Australia in the submission for a 2020 Victorian Duck Season.

Field and Game Australia do not represent me or my desires for a full, legislated 2020 duck season, 12 weeks long, with 10 ducks including no more than 2 Blue Wing Shoveler per day starting on the 3rd Saturday in March at the legislated starting time. I was not consulted, current board members were not even consulted.
I wish to make that point VERY clear.
FGA has taken liberty of its claims to be a representative organization.

Kind regards,

33(1)

Graeme D Ford (DEDJTR)

From: 33(1)
Sent: Saturday, 14 December 2019 3:55 PM
To: Graeme D Ford (DEDJTR)
Subject: 2020 duck season

Mr Graeme Ford,

I am writing today in relation to the recommendations presented on 13/12/19 by Field and Game Australia in the submission for a 2020 Victorian Duck Season.

Field and Game Australia DO NOT represent me or my desires for a FULL, LEGISLATED 2020 duck season, 12 weeks long, with 10 ducks including no more than 2 Blue Wing Shoveler per day starting on the 3rd Saturday in March at the legislated starting time. I was not consulted, current board members were not even consulted.
I wish to make that point VERY clear.
FGA has taken liberty of its claims to be a representative organization.

Regards,

33(1)

Graeme D Ford (DEDJTR)

From: 33(1) on behalf of FOI (DEDJTR)
Sent: Monday, 16 December 2019 9:29 AM
To: Simon J Toop (DEDJTR)
Cc: Graeme D Ford (DEDJTR); Kate Kulman (DEDJTR); Andrew Mendez (DEDJTR)
Subject: FW: 2020 Victorian duck season!

Hi Simon,

FYI, please see email forwarded to the FOI Inbox.

Regards

33(1)
FOI Officer | Ministerial and Portfolio Services, Corporate Services
Department of Jobs, Precincts and Regions
Level 5, 1 Spring Street, Melbourne, Victoria Australia 3000

33(1)

Please note, my working days are Mon - Thur and Fri until 2pm

djpr.vic.gov.au

LinkedIn | YouTube | Twitter

From: 33(1)
Sent: Saturday, 14 December 2019 9:06 AM
To: FOI (DEDJTR) <foi@ecodev.vic.gov.au>
Subject: 2020 Victorian duck season!

To Whom it May Concern,

I am writing today in relation to the recommendations presented on 13/12/19 by Field and Game Australia in the submission for a 2020 Victorian Duck Season.

Field and Game Australia DO NOT represent me or my desires for a FULL, LEGISLATED 2020 duck season, 12 weeks long, with 10 ducks including no more than 2 Blue Wing Shoveler per day starting on the 3rd Saturday in March at the legislated starting time. I was not consulted, current board members were not even consulted.
I wish to make that point VERY clear.
FGA has taken liberty of its claims to be a representative organization.

Regards,

Gould League 2020 Duck Season Considerations

Recommendations

It is recommended a normal length season (opening on the third Saturday in March) be maintained with a full 10 bird limit.

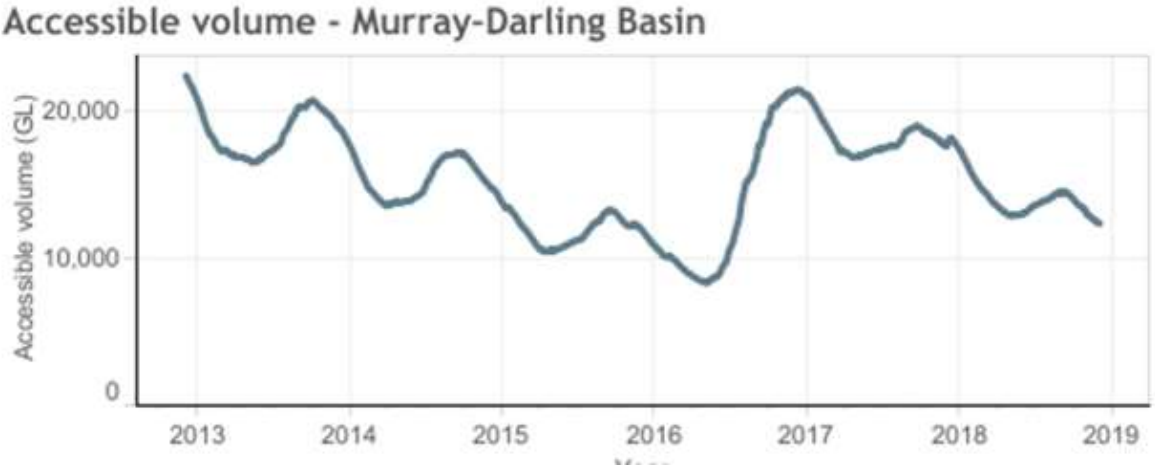
The reasons for this recommendation (detailed below) are:

- Duck hunting has no impact on overall duck populations. Some areas have large breeding events which will in 2020 created a large "doomed surplus". Hunting only reduces the doomed surplus as many more ducks perish from changing seasonal conditions.
- Duck hunting makes a significant contribution to regional economies
- Duck hunting is important activity to individuals' health, family traditions, lifestyles and spirituality.

Conservation 101 - What Every Duck Hunter and Conservation Manager Should Know

As the success of Victoria's State Game Reserves and Ducks Unlimited in North America shows, habitat conservation is crucial; look after the habitat and the flora and fauna will pretty much look after themselves.

Wildlife numbers generally and gamebirds in particular, go up and down with seasonal conditions. It would be true to say that without waterbird habitat, there can be no waterbirds. The Game Management Authority of Victoria in their submission for the 2019 duck season said "water storage levels provide an indication of the availability of waterbird habitat. Water storage volumes and available habit vary significantly from year to year and season to season within years.

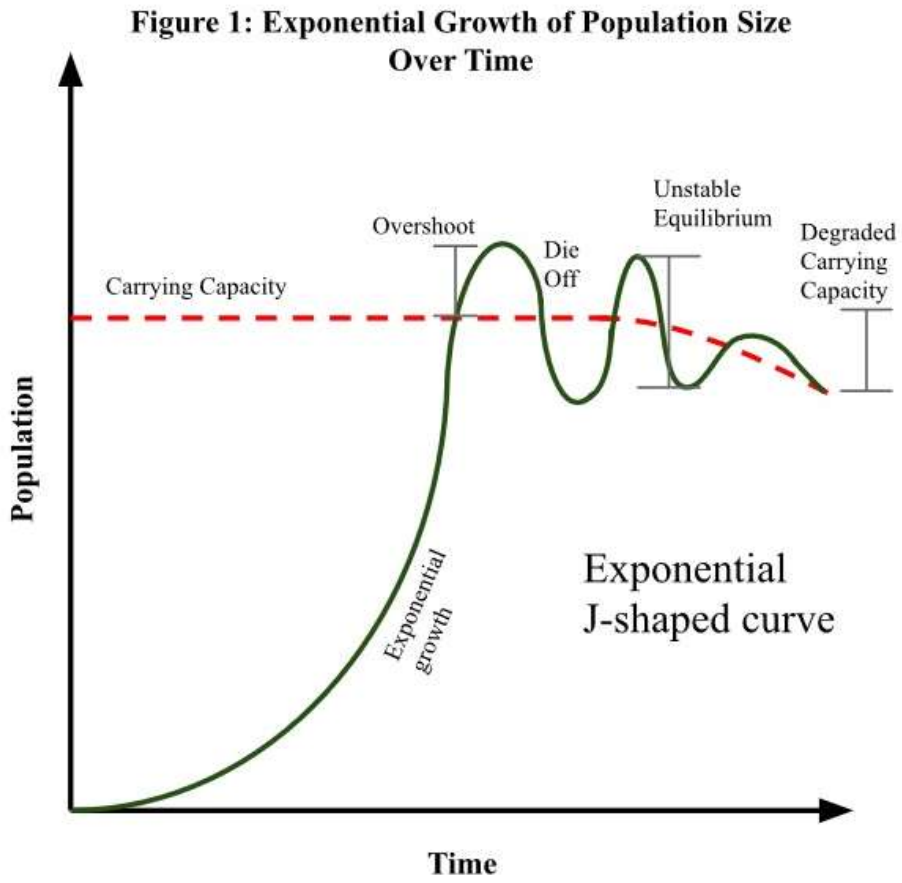


(Graph from GMA "Consideration for the 2019 duck season", page 15)

Even if the habitat conditions were stable, waterfowl populations would fluctuate. Population growth will exceed the carrying capacity, resulting in die off (starvation and diseases such as an avian botulism outbreak), reducing the population beneath the carrying capacity from where is will resume growth. The annual seasonal die off doesn't take into account the annual breeding. In a good year, a breeding pair of ducks can have a clutch of 10 or more chicks twice a year. Breeding at this level will increase the duck population by more than 10-fold in a year. In most years, the habitat just cannot sustain a population increase of this amount. Consequently, whether it's through hunting, predation, disease or starvation a certain percentage of the game population will perish each year. Biologists call this the "doomed surplus". Hunting is sustainable when the amount of game taken by hunters is less than the "doomed surplus".

GMA say themselves: "*Australia routinely experiences variable climatic and environmental conditions. This sees much of the country undergo flood or drying conditions*". Game species especially duck, "*respond quickly to environmental conditions which will see their populations boom during good climate and breeding conditions and then wane during average conditions*".

In Victoria, From June to August, with colder weather, less hours of sunshine, there is less vegetation growth, less insect numbers, low food availability, weather extremes and a natural reduction in waterfowl populations as the winter habitat cannot sustain the higher numbers possible in the other seasons**. GMA says** the timing of the duck season is after the breeding and moulting seasons and before there is "*temperature extremes, low population levels and food shortage*"
https://www.gma.vic.gov.au/hunting/duck/when-to-hunt



(From Wikipedia https://en.wikipedia.org/wiki/Carrying_capacity)

Every year and every winter and every seasonal dry period, there is a significant proportion of waterbirds that are doomed to perish as the available habitat cannot support the seasonal population increase.

Current Seasonal Conditions

Parts of Victoria have received good rainfall and report very good duck numbers. South Australia similarly has seen some very good breeding conditions, particularly with a large flood event in Lake Eyre, with (anecdotally) millions of waterbirds. Other parts of the State and country are experiencing cyclical dry conditions.

As Lake Eyre seasonally dries, millions of nomadic water birds will fly to other areas that will not be able to sustain them. Many of these birds will perish with or without hunting as part of the doomed surplus.

Professor Kingsford's Eastern Australian Waterbird Survey (EAWS) has not surveyed many of the wetlands where waterbirds are. It is not designed for setting duck seasons and is flawed for that purpose as it transverses set latitude bands and flies past important wetlands and duck habitat, for example it bypasses much of the lakes and wetlands in the South West of Victoria, South Australia's coastal lakes and importantly this year, Lake Eyre. The EAWS should be discounted in any consideration of setting duck seasons.

Effect of Hunting

In the late 1900's there was a shortage of meat available in the growing cities. Market hunting of wildlife supplied game meat and the commercial use of punt guns and netting, including during breeding seasons had a serious effect on duck breeding populations. It was for that reason that commercial hunting was banned, punt guns were banned, sale of game meat was banned and the timing of a duck season was placed outside breeding times. While commercial hunting lead to unsustainable practices (due to the

"public good" problem well documented in economics), recreational hunting does not. In fact, recreational hunting puts a value on living wildlife and their habitat. It was from calls by recreational hunters to preserve and protect habitat that Victoria today has it's State Game Reserves. Hunting benefits wildlife.

There is no scientific evidence that recreational duck hunting in Victoria isn't sustainable.

- Reducing bag limits has minimal effect on duck harvests, but a major effect on hunter participation and economic benefit.
- All Scientific studies indicate that hunting has no effect on waterfowl populations (Kingsford, Webb, Fullagar, 2000).
- The timing of duck hunting season is made placed in order to reduce the amount of the surplus population. Hunting only takes from the doomed surplus.

Hunting reduces the number of individual birds that will otherwise be the "doomed surplus". These birds will perish from lack of food and water. The greater the number of the doomed surplus, the harsher will be the survival of the remaining birds as they compete for the available resources. This is "survival of the fittest" playing out. However, competition for limited resources puts a strain on the birds and makes them more susceptible to disease and infection, such as avian botulism.

Hunting, perhaps counter intuitively, helps the larger population by helping reduce the numbers that are already doomed to perish. Recreational hunting helps preserve habitat and is a benefit to wildlife.

Bag Limits

If hunting has no impact on overall populations, why are there bag limits?

Preserve Breeding Stock

Hunting is only sustainable if take or harvest is less than the annual surplus or doomed surplus. Take limits (wrongly called "bag limits" - see the section on Regulations) are designed to ensure too many birds aren't taken in prolonged dry periods in order to ensure sustainability.

Social Licence

In order to keep hunting, we need to ensure that the majority of society is happy for a minority of us to hunt. This is sometimes referred to as the "social licence" and is discussed more below. Setting a "bag limit" is important for the "social licence". At the 2017 a relatively small number of shooters (I won't call them hunters) are believed to have shot over 100 birds each. There were rumours that some had bets to see who could shoot 100 first. This type of wanton destruction was very damaging to the public opinion of hunting and resulted in further restrictions on every other hunter.

Respect - Allowing others opportunities

I was hunting at the former Lake Mokoan one year, and had a nice decoy setup on a point. Every time a flight of ducks came, they headed for my decoys. However, another hunter (who I recognised as the then president of an FGA branch!) was much better with a duck call than me, and he turned the ducks away from my decoys to his. He was doing quite well. I thought, "oh well, he'll have his limit soon and then I can get a few". But he never stopped. He shot well over his limit and didn't stop until late morning when the ducks stopped. As a result of this illegal act of selfish bastardry, I didn't fire a shot. That morning taught me to respect limits.

Benefits of Hunting

The economic benefit of hunting has been confirmed by an independent study commissioned in 2013 as $439 million a year. Duck hunting accounts for 24%, or $99.4 million of the total Victorian hunting expenditure.

A Department of Health (Cth) report shows hunters and fitter, healthier and happier than non hunters.

At a personal level, benefits include:

- Fresh healthy organic lean meat. Game meat is very lean and very healthy.
- Traditions and connections to the bush. Aboriginals have a connection to "country". So do hunters. Peter Burke (Quiet Footsteps) wrote, "*I am a deer hunter and without the forest, I am nothing*". A duck hunter might well say, "*without the wetlands, I am nothing*". Connection to country comes from a shared knowledge of the land, deriving sustenance from the land and managing the land to sustain it. Hunting is conservation. Camping with family and friends is tradition.
- Personal growth and character development. Hunting in the bush or in swamps and backwaters is not for the faint hearted. It can be an adventurous challenge that develops self-reliance, independence, perseverance, resilience, resourcefulness and awareness of oneself and one's surroundings.

  Spiritual Growth. A lot of people say hunting and time in the bush "restores their soul". Taking the life of an animal can generate a lot of feelings and emotions. "Forest bathing" and spending time in nature is becoming a thing to de-stress and relax. Hunting can deliver all these benefits. "*Look deep into nature, and then you will understand everything better*." — Albert Einstein

  Hunting's spiritual element helps me and others connect with God, not dissimilar from Aboriginal spirituality where aboriginal hunting "*offers a venue through which certain men can and do display concern for the belief system ...*". (Australian Law Reform Commission Report 31, Recognition of Aboriginal Customary Laws, at Para 882)

  For many, time hunting helps restores their spirituality or soul. The Australian government accepts that aboriginal hunting is connected to aboriginal spirituality. So too, from Genesis to Revelation, hunting is important to others' spirituality and belief system. I feel it brings me closer to God. Many other hunters and writers have felt this too:

  > *"When a hunter is in a treestand with moral values and with the proper hunting ethics and richer for the experience, that hunter is 20 feet closer to God."*
  > – Fred Bear, founder of Bear Archery.

About the author

Ian Gould is a director of the Gould League Pty Ltd and currently an administrator of a number of hunting related Facebook pages with approximately 7,000 followers. Ian has been on the board of SSAA (Vic) and the finance officer of Field and Game Australia and committee member of an FGA and ADA branch.

12th December, 2019

Submission to the Game Management Authority re the Victorian 2020 Duck Shooting Season.

This submission is made on behalf of the members of Warringal Conservation Society. We are a not-for-profit community organisation caring for the environment in Banyule and beyond. Our members are of all ages and walks of life. Our common goal is to protect the natural environment with all its native fauna and flora. We actively contribute to the natural environment's biodiversity that we know sustains and enriches all of our lives and those of the generations to come.

The most recent aerial survey of wetland birds in eastern Australia(1) shows that the 2019 wetland area index is the lowest recorded since aerial surveys began 37 years ago. Most of Australia experienced below to very much below average rainfall in 2019. Drier and hotter conditions, predicted by climate change scientists, will further dry out remaining wetlands.

Additionally, all major indices for waterbirds – total abundance, breeding index, number of species breeding, and wetland area index – continue to show significant declines over time. Most game species abundances are well below long term averages – by an order of magnitude in some cases. Six out of eight game species continue to show long term declines.

The 2019 survey also shows that waterbirds are less widely dispersed than in the previous year. More than 52% of surveyed wetlands support no waterbirds.

Reports from the public during previous Victorian duck shooting seasons indicate that every year many protected and threatened birds, as well as game birds, have been illegally shot. The number of birds killed is likely to be far worse than the public is aware because the vast majority of duck shooting areas are not monitored.

We believe these reports and the evidence from the October 2019 Aerial Survey of Wetland Birds in Eastern Australia of the current and predicted environmental conditions, waterbird habitat, and the extent and distribution and the abundance of waterbirds throughout eastern Australia, strongly suggest that a moratorium must be recommended for the Victorian duck hunting season for 2020. This is not without precedent as the duck hunting season was cancelled in 2007 and in 2008 due to low duck numbers.

If waterbird populations are to be sustainable in the increasingly dry and hot climate predicted by climate change scientists, they must be given protection from hunting so that they can breed and recover their former numbers.

In response to the current extreme environmental circumstances and evidence of declines in waterbird populations, we urge you to recommend a moratorium for the 2020 Victorian Duck Shooting season.

We thank you for considering our submission and trust that you understand the need for prompt action.

Yours faithfully

33(1)

President

1. Porter, J.L., Kingsford, R.T., Brandis, K. *Aerial Survey of Wetland Birds in Eastern Australia – October 2019 Annual Summary Report*. Centre for Ecosystem Science, School of Biological, Earth and Environmental Sciences, UNSW Sydney, Office of Environment and Heritage NSW.

Environment East Gippsland supports the submission by Regional Victorians Opposed to Duck Shooting Inc in calling for a 2020 duck shooting season close.

33(1)

Coordinator

Environment East Gippsland inc

Locked Bag 3

ORBOST Vic 3888

Hamilton Field Naturalists Club
Since 1958

Recommendation to close the 2020 duck shooting season.

Ongoing drought in NSW and QLD has devastated waterbird populations. We cannot allow the ducks that remain and seek refuge in Victoria to be shot.
There are very few sanctuaries where duck hunting is prohibited. Quite apart from the carnage during the open season, it is now impossible to view waterbirds at close range on our lakes and swamps at any time, because of the birds' fear of shooters. The impact of duck hunting on the migratory waders that rely on our wetlands to prepare for their annual long flight to the arctic regions is also of huge concern. Continual disturbance to their feeding grounds in Australia in early autumn should not be permitted.

33(1) OAM, PhD
Secretary
Hamilton Field Naturalists Club

The Minister for Agriculture and The Premier of Victoria
Parliament House, Melbourne 3001

Friday 13th December 2019

Dear Minister and Premier,

The Avon Plains Banyena Landcare Group wishes to endorse the submission of the Regional Victorians Opposed To Duck Shooting (RVOTDS).

Walkers Lake is a small waterbody in our Landcare area and the only lake of the Avon Plains Lakes that holds water. It is a small oasis in an environment that lacks dams and lakes and whose river, the Richardson, is now reduced to a series of small waterholes.

The data tells us that the number of waterbirds is in serious decline and this is endorsed by our own bird surveys conducted at the lake. This scenario is evident in wetlands all over Victoria.

We urge the Victorian Government to heed the data and the predictions of a drier than ever 2020 and stop the slaughter of our native waterbirds. The price Victorians and Australians are paying for the pleasures of a diminishing number of hunters is scandalous.

Yours sincerely,

33(1)

Avon Plains Landcare Group
Banyena 3388

To whom it may concern, **12th Dec 2019**

As a licenced tour operator in Victoria I would like to make it clear that I do not support a duck shooting season in 2020, or into the future.

I take local and international tourists around the state throughout the year to enjoy the wide range of birds, animals and wild landscapes still existing here in Victoria. After 17 years of operating across the entirety of Victoria and having lived and worked in an irrigation district of northern Victoria I have a deep knowledge of the local environment and especially of issues around water, irrigation and environmental watering. The science and facts are clear. Water extraction for human use has greatly depleted the available habitat for water birds and the declines in their overall numbers are real. With an extensive drought throughout Qld and NSW, the more southern and coastal areas including Victoria are important refuges for ducks and other water birds that may not have successfully bred since flooding in 2016.

The indisputable evidence of a warming climate will only exacerbate the issues around water allocations and conflict between water for human use and that for the environment. In this climate, allowing the "sport" of shooting native water birds will inevitably deplete their numbers further. There is also the very real issue of the huge amount of suffering of birds that are wounded and not collected by hunters.

The visitors who I take to wetlands around the state marvel at the diversity and numbers of birds still present here, but these places and birds are being gradually being eroded away. I am particularly opposed to shooting at wetlands that have received environmental water during drought conditions. Whilst they should become a refuge for birds during very dry times, instead they become a dangerous and disturbed environment. My tours are adversely affected. I have to tell visitors that due to duck hunting we may not see many birds, and those that are present will be very spooked and difficult to observe. Actually I tend to avoid visiting wetlands between March and June most years, no discerning nature lover wants to walk around amongst empty shotgun cartridges or witness injured ducks that are suffering, something which I see regularly during the hunting season.

I look forward to a time when peace returns to our wetlands throughout the year,

Simon Starr, www.BirdingVIctoria.com.au and Firetail Birding Tours established 2002

The Minister for the Environment and The Premier of Victoria
Parliament House, Melbourne 3001

Thursday 12th December 2019

Dear Minister and Premier,

the St Arnaud Field Naturalist Club writes to you again in the hope that its plea to end the persecution of our waterbirds will finally be heard and acted on.

In the north west of this State we have very little open water.
Thanks to the Wimmera Mallee Pipeline which now ensures a better water supply to towns, businesses, industries and farms, most open water- farm dams, waterholes and the like have been removed.

A small amount of water is allowed for environmental purposes- Tchum Lake at Birchip, Watchem Lake, Walkers Lake at Avon Plains, Wooroonook and a very few others.

These lakes are recreational lakes for their districts- fishing,swimming, boating etc, but also open to duck shooting, in season.This results in hazardous conditions for all users.

Given the lack of water bodies for ducks and all other waterbirds and given the increasing likelihood of even drier conditions in the coming year, birds will have to congregate in these few lakes and wetlands.

A shooting season will be like shooting fish in a barrel and is not acceptable to any right-thinking person. This is not sport but a massacre.

We ask this Government to ban once and for all this anachronistic practice and give our suffering waterbirds of all types, but especially our ducks a chance to live.When will you ban this practice- when the birds are all gone?
How can this be other than mismanagement when we know that our bird species are in serious decline?

No other native bird or animal is subject to this barbaric treatment- it must stop now.

We, the members of St Arnaud Field Naturalist Club ask that your Government hear our plea,

33(1)

President

St. Arnaud Field Naturalists

P O Box 53 St Arnaud Vic 3478
Email: starnaudfieldnats@gmail.com
Web: www.starnaudfieldnats.org.au

VICTORIAN NATIONAL PARKS ASSOCIATION

environment victoria

Wilderness Society
Life. Support.

The Hon. Daniel Andrews
Premier of Victoria,
Level 1, 1 Treasury Place, East Melbourne VIC 3002
By email: 33(1)

CC: The Hon. Jaclyn Symes MP Minister for Agriculture
By email: 33(1)

CC: The Hon. Lily D'Ambrosio
Minister for Energy, Environment and Climate Change
By email: 33(1)

13 August 2019

Ban on Duck Shooting

We write as leading Victorian environment and conservation organisations to express our strong hope that the Andrews Government will support moves to ban recreational duck hunting, as has already been done in Queensland, New South Wales and Western Australia.

Habitat loss and degradation have reduced native waterbird populations to dangerously low levels in much of Eastern Australia. It is no longer possible to reconcile a shooting season of any length with the maintenance of viable populations of these birds. Prevention of extinction and maintenance of biological diversity needs to be prioritised.

Climate change represents an additional threat to these birds, with six out of eight 'game' species already show long-term decline. Species richness of these native water birds is currently very low, and therefore the number of birds that are breeding is also low. This indicates their habitat is in trouble, which is driven by climate change and over extraction of water.

This a similar pattern to that seen in the millennial drought, when waterfowl across Australia suffered a population decline of approximately 85%. The shooting of breeding stock will hinder recovery of native water birds, and efforts need to be made to reverse this decline.

We understand Victoria aims to be respected globally for its animal welfare and land management practices, as well as the state's response to climate change, and we urge the Andrews Government to ban recreation hunting of water birds and other game species.

Yours Sincerely,

33(1)
Executive Director
Victorian National Parks Association

33(1)
CEO Environment Victoria

33(1)
The Wilderness Society, Vic.

tasmanian conservation trust inc

19 September 2019

The Hon. Daniel Andrews
Premier of Victoria
Parliament House
Melbourne 3000

33(1)

Copied to

- The Hon. Lily D'Ambrosio, Minister for Energy, Environment and Climate Change
- 33(1)
- The Hon. Jaclyn Symes, Minister for Agriculture
- 33(1)

Dear Premier,

RE: Support for the banning of recreational duck shooting in Victoria

The Tasmanian Conservation Trust writes to you to give its support for the bill to ban recreational duck shooting that is currently before the Victorian Parliament.

While our organization is concerned with protecting the environment of Tasmania some duck species move between our states and therefore I feel compelled to write in support of a ban on recreational duck shooting in Victoria that will help protect Tasmania's duck species.

The principle reason that the TCT opposes recreational duck shooting is that it is inherently cruel as many ducks shot do not die a quick and humane death. I know this from personal experience. I have attended duck shooting protests on Tasmania's east coast each year since 1992 and have regularly witnessed birds that are brought down but require several additional shots before they are killed, some suffering for several minutes. I have also seen birds clipped, i.e. hit by pellets but not brought down. We can only presume that some of these birds die hours or days later from their wounds or are taken by predators. Shooters must pass a test to show they can identify game species but my experience shows that out of any group of shooters there are some that take higher risks, shooting at birds when they do not have a good shot which makes getting a clean kill much harder. This happens when we are watching them so we hate to imagine what happens when they are alone.

Floor 2, 191 Liverpool Street, Hobart TAS 7000 Australia
p (03) 6234 3552 f (03) 6231 2491 e tct6@bigpond.com ABN 63091237520

Another reason for banning recreational duck shooting is that it is not necessary for feeding the shooters or controlling a problem for farmers but is purely done for 'enjoyment' or 'sport'. Shooting wild species for sport or fun cannot be condoned in the 21st century. Shooters claim that they are helping farmers but I have never seen evidence that recreational shooters get organized to target farming areas at the very time they are suffering impacts from ducks. Recreational shooters go shooting when and where they most want to go, usually near to their favorite camp site.

As the impact of global warming intensifies the changing weather patterns are threatening wetlands and wetland bird species, including ducks. While these impacts are being felt in Tasmania is seems they are more severe in Victoria and other south-eastern Australian states. Information provided to me shows that six out of the eight target duck species in Victoria are experiencing long-term decline and there was a near total breeding failure in both 2017 and 2018. Given these circumstances all unnecessary killing of ducks must be stopped permanently.

The movement of ducks across Bass Straight is not closely studied but it is known that birds will cross both ways including during years when wetlands in one state are dry. It is not an exaggeration to say that the banning recreational duck shooting in Victoria will help preserve duck populations in Tasmania as well.

Wetlands in Victoria and Tasmania are under tapped as nature-based tourism assets. I can't speak on specific wetlands in Victoria but in Tasmania duck shooting dominates the magnificent Moulting Lagoon during autumn which is usually the best time to visit Tasmania's east coast. To state the obvious, tourists do not want to stay at Moulting Lagoon when shooting is occurring.

I am sure that the Victorian tourism industry can benefit greatly from replacing shooting on wetlands with sensitive tourism. Tourism will provide an additional reason for conserving the wetlands from other threats. Perhaps Victoria can set an example for Tasmania to follow and we will finally ban duck shooting and take advantage of our magnificent wetlands as a tourism asset.

Yours sincerely,

33(1)

Director

33(1)

The Field Naturalists Club of Victoria Inc.
FNCV Est. 1880
Understanding Our Natural World

Postal Address: PO Box 13, Blackburn, Vic. 3130
Club Address: 1 Gardenia Street, Blackburn.
Email: admin@fncv.org.au
Website: www.fncv.org.au
Phone: (03) 9877 9860
Reg. No A0033611X
ABN 55 791 612829

Patron: The Honourable Linda Dessau, AC
Governor of Victoria

12 August 2019

The Hon. Daniel Andrews
Premier of Victoria
Level 1, 1 Treasury Place. East Melbourne VIC 3002
By email: 33(1)

The Hon. Jaclyn Symes MP Minister for Agriculture
Level 36,121 Exhibition Street
Melbourne VIC 3000
By email: 33(1)

The Hon. Lily D'Ambrosio
Minister for Energy, Environment and Climate Change
Level 16, 8 Nicholson Street. East Melbourne VIC 3002
By email: 33(1)

Dear Premier, Minister Symes and Minister D'Ambrosio,

Re: Recreational duck hunting prohibition bill

We understand the Victorian Parliament will soon be considering a bill to ban recreational duck hunting in Victoria, which will be proposed in a Private Members Bill from Animal Justice MP Andy Meddick. We write to express our strong support for this bill which we hope our Victorian Government will also support.

Recreational hunting remains legal in Victoria, despite polling showing that an overwhelming number of Victorians want it banned. The Field Naturalists Club of Victoria Inc. (FNCV) wants to add its voice to the chorus of protest against this annual, barbaric slaughter of our native birds.

The RSPCA opposes duck hunting as do many members of the Victorian Parliament. Duck hunting has ceased in three states: Queensland, New South Wales and Western Australia. When Carmen Lawrence banned it in WA she said *"Our community has reached a stage of enlightenment where it can no longer accept the institutionalised killing of native birds for recreation".*

There are many arguments against the killing of ducks:

- Hunting ducks in 2019 is completely unsustainable. Wetlands are under threat all over the State and bird numbers are in serious decline. The official average yearly death toll from shooting is estimated at about 390,000 birds. We cannot pretend that the annual loss of this many birds will have no effect on their future numbers.

- Duck hunting is cruel. Shotguns operate by puncturing organs and splintering bones. They violate the spirit and letter of our Animal Welfare Act. A smashed wing will bring a duck down but a fractured leg or beak will see it fly off to die miserably later on.
- Even the most responsible hunter cannot avoid killing protected species and injuring birds.
- Lead shot remains in the environment and is an environmental poison, entering the food chain and impacting the food web. The accumulated effects of many decades of hunting have already damaged our ecosystems. Continued hunting, even with non-toxic pellets, is placing unacceptable pressure on already over-stressed bird populations.
- Further arguments against duck hunting include the number of accidents and even deaths amongst the shooters themselves.

The FNCV was formed in 1880, to provide opportunities for people with an interest in natural history to gather for discussion, learning and fieldwork. Its mission statement is "Understanding our natural world". It is the oldest such group in Australia. Its many special interest groups focus on: Botany, Fauna Survey, Fungi, Geology, Marine Research, Microscopy and Terrestrial Invertebrates, plus a group especially for Junior Naturalists. From its beginnings, the Club has contributed significantly to all natural science disciplines, through research, fieldwork and publications. It has been, and is, at the forefront of citizen science in Victoria.

The FNCV is a not-for-profit organisation of approximately eight hundred members, which has been highly active in the conservation of Victoria's natural environments. FNCV's achievements in this area include successfully campaigning for the reservation of Wilsons Promontory, and the formation of the Victorian National Parks Association. Operating from its own premises in Blackburn, the FNCV is today more active than at any time in its long history.

We commend this Bill to you and hope that duck shooting will soon no longer be a part of the Victorian way of life.

On behalf of the Council and Members of the Field Naturalists Club of Victoria,

33(1)

33(1)

President

HUMANE SOCIETY INTERNATIONAL

Humane Society International Inc.
ABN 63 510 927 032

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Australia

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The Hon. Daniel Andrews
Premier of Victoria
Level 1, 1 Treasury Place,
East Melbourne VIC 3002
By email: 33(1)

The Hon. Jaclyn Symes MP
Minister for Agriculture
Level 36,121 Exhibition Street
Melbourne VIC 3000
By email: 33(1)

The Hon. Lily D'Ambrosio
Minister for Energy, Environment and Climate Change
Level 16, 8 Nicholson Street,
East Melbourne VIC 3002
By email: 33(1)

2 August 2019

Dear Premier, Ministers Symes and D'Ambrosio,

Re: Recreational duck hunting prohibition bill

Humane Society International is the world's largest animal protection charity with 10 million supporters worldwide.

We understand the Victorian Parliament will soon be considering a bill to ban recreational duck hunting in Victoria, which will be proposed in a Private Members Bill from Animal Justice MP Andy Meddick. We write to express our strong hope that the Government will support the bill and consign this cruel sport to history as has been done in Queensland, New South Wales and Western Australia.

Humane Society International objects to duck hunting on both animal welfare and conservation grounds.

Duck hunting is undeniably cruel. Due to the nature of shotgun fire, it is inevitable that a high proportion of birds will not die instantaneously and will suffer prolonged and painful deaths from their wounds. With hundreds of thousands of waterbirds shot in each Victorian hunting season, the level of suffering is wholly unacceptable.

Inflicting this cruelty on native water bird species when they are experiencing environmental stress due to intractable causes such as climate change is particularly objectionable. Humane Society International is gravely concerned by declines in waterbird abundance and asks that this key compounding threat to their survival be removed immediately.

Allowing this activity to continue would be an affront to conservation and contravene the commitments made in Victoria's Animal Welfare Action Plan, tarnishing the stated aim for Victoria to be respected globally for its animal welfare practices.

US Office:
Washington DC

Regional Offices:
Africa
Canada
Europe
India
Latin America
Mexico
United Kingdom

Whereas, we stand ready to warmly congratulate the Andrews Government when you take the decision to support the bill to outlaw recreational duck hunting.

Thank you for considering our views and those of our Australian supporters.

Yours sincerely,

33(1)

Head of Campaigns

Bendigo Field Naturalists Club Inc.
Inc # A0007527C
PO Box 396, Bendigo 3552

Fairy Waxflower
Philotheca verrucosa

21/10/2019

Hon. Lily D'Ambrosio
Minister for Energy, Environment and Climate Change Minister
for Solar Homes

Dear Minister,

I am writing on behalf of the Bendigo Field Naturalist Club to express our support for the cessation of duck shooting in Victoria, and in particular, for the Wildlife Amendment (Protection of Birds) Bill 2019 to be legislated. Duck shooting causses needless suffering for wildlife, threatens the conservation of many waterbird species, and is counter-productive for regional economies.

Wildlife suffer needlessly when disturbed and displaced from their habitats during duck season. Birds rarely die immediately when shot. Injured, they fall to the ground or into the water still alive to suffer a protracted death. No animal should be treated like this for the purpose of 'recreational sport'.

Every year hunters kill protected species, many of which look nothing like the species they are supposed to be 'targeting'. There is no justification for allowing the continued shooting of rare and threatened species which is well documented to occur every season. All waterbirds are struggling to survive due to the decimation of their breeding habitats caused by the draining or alteration of wetlands, river regulation, and the over allocation of water resources for irrigation. The loss and alteration of wetlands throughout southern and eastern Australia has magnified the vulnerability of waterbirds and this situation is only made worse by allowing there 'recreational' hunting to continue.

Hunting provides a false economy which undermines (rather than supports) regional growth and prosperity. For the sake of a few weeks of seasonal 'hunting activity' the wetlands on which the hunting is allowed are significantly undervalued. If these wetlands were extensively restored to promote ecological services and managed to provide high quality waterbird habitats, they would be able to support year round economic activity for the regions in which they occur. Investment in restoring and managing Victoria's wetlands as natural assets with the purpose of conserving waterbirds and their habitat is an investment in resilient and sustainable regional economies.

With the high probability that environmental conditions will continue to decline throughout south eastern Australia in coming decades it is now an extremely important time to fully protect waterbirds in this state by ceasing any further legal recreational duck shooting.

Yours Sincerely,

33(1)

Secretary, Bendigo Field Naturalists Club 33(1)

SYDNEY HARBOUR KAYAKS

11 September, 2019

The Hon. Daniel Andrews (Premier of Victoria)

33(1)

Dear Premier Andrews,

As a business owner in the tourism sector, I write to express my concern regarding the negative impact that Duck Shooting has on tourism in the Murray River's Barmah Forest and Gunbower Creek Forest, including the Kerang Ramsar wetlands.

I, myself have been paddling on the Gunbower Creek with my family when we have experienced the sounds of shots at very close range, which is very alarming. I have looked into it, and there seem to be no set boundaries or zones for duck shooting areas, which is very dangerous for those using the Gunbower Forest and Creek for other recreational purposes, including kayaking or canoeing and camping.

I am the owner of Sydney Harbour Kayaks in Sydney and Murray River Adventures in Cohuna Victoria, which runs guided kayak tours on the Gunbower Creek and surrounds. My company is also the organiser of the Massive Murray Paddle, Australia's iconic paddling race which takes place on the Murray from Yarrawonga to Swan Hill each year in the third week of November, and also the Black Swan Creek Race from Gunbower to Cohuna, which had its inaugural run this year in March.

Our tours on the Gunbower Creek are enjoyed by tourists and locals alike, and a favourite which those wishing to observe the abundant and varied birdlife on this stunning waterway. Our experienced guides provide an enjoyable, educational experience for our customers and give detailed information the flora and fauna, as well as on the history on the Creek and Forest, including pointing out objects of historical interest and Aboriginal culture such as the scar trees and middens.

SYDNEY HARBOUR KAYAKS Murray River ADVENTURES COHUNA, VICTORIA

SYDNEY HARBOUR KAYAKS The Black Swan Canoe - Kayak - Boards Gunbower Creek GUNBOWER TO COHUNA

MASSIVE MURRAY 1969 405KM 5DAYS PADDLE 2019

SYDNEY HARBOUR KAYAKS

I believe, in firm collaboration with the local Councils of Gannawarra Shire and Campaspe Shire and also operations like NC CMA and DELWP that the growth of nature-based tourism is vital for the injection of funds into the local towns along the Murray River, and indeed for the survival of the people of the regional towns in this wonderful area of Victoria. It is a tragedy that people should be deterred from enjoying these beautiful areas of public forest for fears of being shot by a very small minority of people who choose to shoot ducks.

I feel very strongly that Duck Shooting does not have a place in this area, and I feel that the negative impacts far outweigh the desire of a minority who wish to partake in this activity.

I look forward to hearing from you with regard to what can be done to, ideally prohibit or place much tighter restrictions on this activity.

Your sincerely,

33(1)

Director
Sydney Harbour Kayaks
Incorporating:
Mirage Sea Kayaks
Murray River Adventures
Massive Murray Paddle
Black Swan Creek Marathon

SYDNEY HARBOUR KAYAKS Murray River ADVENTURES COHUNA, VICTORIA

SYDNEY HARBOUR KAYAKS The Black Swan Canoe - Kayak - Boards Gunbower Creek GUNBOWER TO COHUNA

MASSIVE MURRAY 1969 404KM 5DAYS PADDLE 2019

SYDNEY HARBOUR KAYAKS

Contact Details.

33(1)

SYDNEY HARBOUR KAYAKS
Murray River
ADVENTURES
COHUNA, VICTORIA

SYDNEY HARBOUR KAYAKS
The Black Swan
Canoe - Kayak - Boards
Gunbower Creek
GUNBOWER TO COHUNA

MASSIVE MURRAY
1969
404KM
5DAYS
PADDLE
2019

Wildlife Preservation Society of Qld
www.wildlife.org.au

The Hon Lily D'Ambrosio
Minister for Energy, Environment & Climate Change, Minister for Solar Homes
Level 16, 8 Nicholson Street
East Melbourne, Victoria 3002
By email: 33(1)

Dear Minister

Wildlife Preservation Society of Queensland (Wildlife Queensland) urges your Government to support the *Wildlife Amendment (Protection of Birds) Bill* 2019. Wildlife Queensland is a highly respected wildlife focused conservation organisation with over 6500 supporters, including supporters from Victoria. Wildlife Queensland was instrumental in forming an alliance with Birds Queensland, RSPCA and several other likeminded groups in achieving a ban on recreational duck and quail hunting in Queensland. On 10 August 2005 Queensland became the third Labor state in Australia to ban the recreational shooting of native waterbirds when Premier Beattie announced his Government's decision with the words 'This is not an appropriate activity in contemporary life'. Those words are just as true today.

Circumstances in Victoria today mirror the situation in Queensland in the early 2000s. The water levels and breeding numbers are in decline and the number of duck shooter have declined from 95000 in 1986 to very small number. There is no question this hunting activity causes inherent and inevitable pain and suffering. Some birds will be wounded, others will be crippled and die in perhaps a few hours or days. Let us not forget about the non- target species that accidently get in the way.

Public opinion has changed for the better. Today the majority of the public view hunting of waterbirds as an outdated, antisocial activity and not acceptable in our society. In 1991 the then Victorian Government drafted legislation stopping hunting of waterbirds following the ban in Western Australia in 1990 but the draft did not progress. You have demonstrated your care for wildlife by banning opera house traps to protect and conserve platypus. Continue to demonstrate your care for wildlife. Support the Bill and protect our waterbirds. Do not be the last State to do so. Thank you for your consideration.

Yours sincerely

33(1)

12th November 2019

WILDLIFE VICTORIA
ON CALL TO HELP
03 8400 7300

Wildlife Victoria Inc.
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www.facebook.com/wildlifevictoria

12th August 2019

The Hon. Daniel
Andrews, Premier of
Victoria
Level 1, 1 Treasury Place
EAST MELBOURNE VIC 3002

Dear Premier,

Re: Duck Shooting in Victoria

Wildlife Victoria is opposed to the killing of indigenous native wildlife for food or recreation. The annual duck season has long been opposed by conservation, animal welfare and community organisations and has been discontinued in Western Australia, NSW and Queensland.

No doubt you are aware of the many arguments against the continuance of this annual slaughter, but I will outline our main points briefly.

1. Cruelty

Despite detailed regulations, the suffering caused to shot birds remains unacceptable. Shooters are regularly observed not complying with regulations and it would be uneconomic to employ the number of compliance officers that would be required to effectively enforce the regulations. Even large-scale wildlife crimes – for example the indiscriminate shooting of large numbers of birds at Box Flat in 2013 and Kerang in 2017 – remain unprosecuted.

2. Biodiversity

With decreasing rainfall and increasing temperature set to be a continuing trend due to climate change, water-bird populations are expected to continue to decline. Ceasing "recreational" shooting will remove at least one unnecessary pressure on populations in Victoria. Every year a large number of non-target birds are illegally shot - Swans, Moorhens and Coots as well as listed species such as the Freckled Duck. We have also seen on at least one occasion the bodies of shot, FFG-listed Grey-headed flying fox (*Pteropus poliocephalus*) recovered from wetlands near Geelong during the duck season.

WILDLIFE VICTORIA
ON CALL TO HELP
03 8400 7300

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3. Safety and Amenity

The presence of (mainly) men with guns dressed in camouflage roaming the wetlands means that these areas are not perceived as safe for other recreational activities during the duck season. People living or visiting in proximity to the killing zones experience emotional distress due to the sounds of wildlife being killed. The presence of groups of sometimes alcohol-affected and occasionally belligerent armed men is not something most people wish to put themselves or their families near. The lack of a proscribed blood alcohol concentration (BAC) for shooters means that drinking is an inherent aspect of many of the "shooting parties" and increases the perceived and real risk to the community. The amenity of our natural spaces for other users is further reduced by the building of "hides" and the large amounts of rubbish left behind by shooters.

We urge the government to finally and permanently stop the declaring of an annual "duck season" in Victoria and return the wetlands to the wildlife and recreational users who shoot only with cameras.

Yours sincerely,

33(1)

Davidson CEO

Mobile: 0419 805 062
Megan.davidson@wildlifevictoria.com.au