07
APRIL 2021

Plane Wild

AAWHG
AUSTRALIAN AVIATION WILDLIFE HAZARD GROUP

Photo: *Grey-headed flying fox. Andrew Mercer*

IN THIS ISSUE

Talking with … Will Steele

Will Steele is the modest principal of Ecology Balance, a wildlife hazard management consultancy.

Plane Wild talked to Steele about how his career began, and his observations of wildlife hazard management practices over the past 20 or so years.

Initially, he trained in zoology at the University of Cape Town (UCT), and with UCT's proud focus on research, also went on to complete his PhD there, looking at the 'foraging ecology of gulls'. This specialisation led him being called upon to advise on problems with gulls on offshore oil rig helicopter landing sites, as well as a temporary wetland attracting thousands of gulls to a South African Air Force base.

This was Steele's first experience of the relationship between aviation safety and wildlife hazards, something which was to guide his future career when he came to Australia in 1995.

***Photo:** Will Steele. Supplied.*

He joined what was then the Royal Australian Ornithologists Union (RAOU) – Birds Australia, and now BirdLife Australia, and from 1996–2000 undertook project work on behalf of RAOU with Melbourne Airport. That time was 'the first real serious attempt to make on-ground changes—to make a real impact', he says. After the RAOU pulled out of airport consultancy work, Steele continued work for Melbourne Airport—until 2020, when he decided to focus on other work.

In his time advising industry in Australia, 'three major advances have made a difference in wildlife hazard management,' he says.

'First, and I'm not brown-nosing, is the establishment of the AAWHG. When I started in 1996, things were rather disjointed and unformalised—the AAWHG facilitated discussion and raised standards.' Steele acknowledges Anthony Rohead's (formerly on the ops team at Melbourne Airport) initiative when at CASA, of getting the first meetings going.

Secondly, Steele points to the increased number of scientific papers becoming publicly available. 'We are starting to get Australian peer-reviewed research papers—2020's on wasps and pitot tubes, or 2018 on magpie responses to other birds.' It is important, he says to have the discipline of having such papers peer-reviewed. Often 'so much of the knowledge is kept in confidential consultant reports', whereas now people are starting to share experiences and data.

Steele has just used publicly available data (on air traffic movements and strikes over the past 10 years) for three Victorian airports in the same bio-region (likely to share the same fauna): Melbourne, Essendon and Avalon, in an article published in the CSIRO's *Wildlife Research* journal. His analysis reveals that each of these airports, despite their colocation in the same bio-region, is unique in its strike profile, and supports continued tailored, location-specific management.

Thirdly, Steele says, the National Airports Safeguarding Framework guidelines 'have enabled airports to talk more sensibly with local authorities—wildlife issues are not always the aerodrome's problem'.

Looking forward, he argues that for effective wildlife hazard management, 'we need to address three big gaps', with the first being the lack of accurate species identification. 'I'm always horrified at the unidentified taxa, and the fact that the largest strike species category in the ATSB database is "unknown". You can't manage what you don't know,' Steele says.

Secondly, 'we seem to have so little scientific data on what's driving the strike risk. It's a multi-criteria problem with a multi-variable strike risk (considering factors such as seasonality, weather, active harassment, flowering species). We need to come up with a robust model.'

And finally, 'we don't have a short-term predictive model. We should be able to say, "we've just had rain, and it's been three days of between 20- and 25-degrees C. With this much rain, we know the ibis are out".'

***Photo:** Steele says grey-headed flying fox numbers have increased in Melbourne, with camps of up to 50,000. The winters have been milder, and lots of native or fruit-bearing trees have been planted. On the northern part of Melbourne Airport, there is also a 137-ha heritage grey box woodland, which attracts flying foxes when the trees are flowering.*

AAWHG 2021 forum

15-16 September 2021

The AAWHG committee is now well underway with planning of our biennial forum to be held on 15 and 16 September, 2021 at the Rydges Hotel in Adelaide, South Australia. As with many events in the time of the pandemic, our 2021 forum will be a hybrid event, with delegates able to attend in person, or virtually. Some presentations will also be virtual, and we're thrilled that colleagues in the US and Indonesia, for example, have submitted proposals, and will be able to present despite travel restrictions.

Speaking of presentations, we have had a great response to our call for papers, so a big 'thank you' to all those who submitted abstracts. We're working on finalising the program, and will be in touch with those who submitted papers by mid-May to update them.

Presenters will cover a wide range of wildlife hazard management topics: from practical case studies on passive management and data collection, to risk assessment and wildlife hazard management plans and sessions covering wildlife hazard management from the pilots' perspective.

The registration fee for those attending in person will be A$300, and for virtual delegates, A$100. The AAWHG committee has deliberately kept the fees low to enable as many industry delegates to attend in person as possible. Nothing beats the opportunity to be able to network with, and learn from, colleagues in person—something we've all missed during the pandemic. We look forward to seeing you all in Adelaide in September. Registrations will open on 1 June 2021, and will be open until 31 August.

Rydges Adelaide is located at 1 South Terrace in Adelaide's CBD. The hotel is positioned next to the Southern Parklands, Greenhill Road, Gouger Street restaurant precinct and the Central Markets. The hotel has a range of room types to suit individual needs, and boasts spectacular views of the city, surrounding parklands and the Adelaide Hills.

***Photo:** McLaren Vale, South Australia Credit: KaZKaptureZ*

Visitors will enjoy not only a stimulating forum program, but can discover the best of what spring in the state of South Australia has to offer; wine from the state's famous wine-growing regions, the regional cuisine with its German pioneer influence, not to mention stunning beaches and scenery, such as Kangaroo Island and the Flinders Ranges.

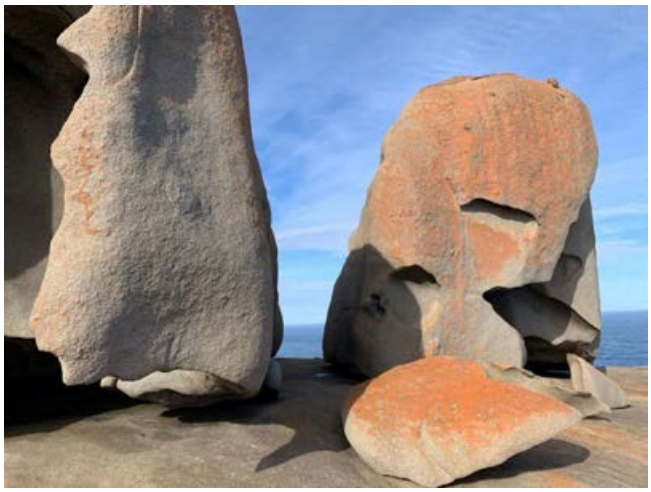

***Photo:** Remarkable Rocks, Kangaroo Island Credit: Margo Marchbank*

Follow the forum updates in *Plane Wild*, and on the website: aawhg.org

Covid's no excuse to drop the ball

We've all seen the footage of wildlife making the most of spaces humans have left idle because of the COVID-19 pandemic. A recent documentary, 'The Year the Earth Changed' released to coordinate with International Earth Day (22 April), shows the impact of reduced car, ship and aircraft traffic during the lockdowns.

***Photo:** Capybaras grazing in a city park in south-eastern Brazil Credit: Mariodro CC2.5*

Wildlife has returned to cities and towns: in Buenos Aires, for example, 'normally shy capybaras (the world's largest rodent, which resembles a giant long-legged guinea pig), are shown raiding 'manicured suburban gardens, built on their former wetland home', while a trio of jackass penguins parade through the streets of Cape Town, South Africa.

Wildlife hazard management becomes even more of a challenge in this time, especially with the standing down of so many industry personnel because of economic constraints. However, Andrew Williams, of Biodiversity Australia, says there are some cost-effective things, (six in fact), airports can do.

1. Review your wildlife hazard management plan (WHMP). 'It's legislated, but a lot of the time', Williams says, 'there can be a disconnect between the ops manager and staff on the ground. Make sure they're aware of it, and know what's in it—get them to review it.' After all, ground staff live and breathe this, and are best placed to identify any gaps between what's in the plan, and what happens in reality.
2. Follow up. 'Treat your standard operating procedures (SOPs) separately, as an appendix to your WHMP—there's always room for improvement—your SOPs have a crucial and critical bearing on how you operate.'
3. Hold regular competitions to engage staff, focusing on wildlife species, or wildlife counts: with smaller daily, prizes, and perhaps a monthly award. 'Working on the one site every day can be a bit monotonous', Williams says, 'but competitions for new species identification (for staff members' own species lists), or the most birds identified in a particular timeframe, can put a bit more variety in the day.'
4. Changing mindset. This is a trickier one, Williams says, but encouraging aerodrome reporting officers (AROs), not all of whom have an ecological background, to think like ecologists, will enable them to approach wildlife hazard management more holistically. Encourage consideration of how the wildlife at your airport interacts with its environment. What does the food web look like at your location?
   What are the attractants?

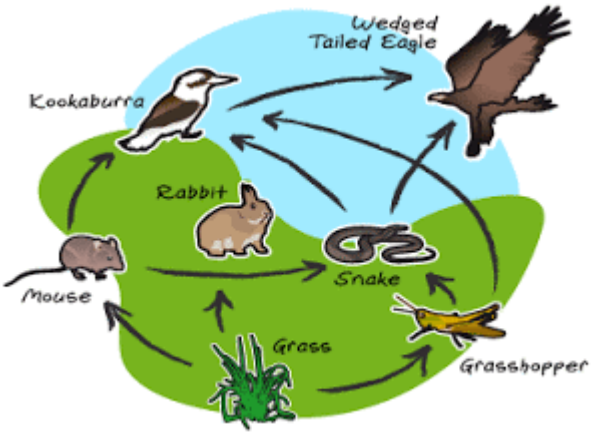

***Photo:** A simple food web*

5. Servicing/maintaining WHM equipment. Ensure you have a regular maintenance schedule, so that firearms are cleaned not only every time they are used, but on a regular (quarterly?) schedule. Track this on a whiteboard near the gun safe. A weekly maintenance checklist would include sirens, pyrotechnics equipment etc.
6. Firearms training. 'I see big gaps in the skill levels of AROs using firearms,' Williams says. 'They're a high-risk tool, and a lot of people have very limited experience. They say to me, "I've never shot outside work". Make time to go down to the range—understand the ballistics performance of the firearms you use, the spread of the shotgun for example.'

Did you know?

April 2021 sees the 109th anniversary of the first aviation fatality caused by bird strike.

On 3 April 1912, American aviation pioneer, Calbraith Perry Rodgers, who made the first transcontinental flight across America, flew his Wright Model B aircraft into a flock of birds while on an exhibition flight over Long Beach, California. The Model B crashed into the ocean, and Rodgers died a few minutes later, his neck broken and thorax damaged, aged only 33.

Photo: *Calbraith Rodgers finishing his transcontinental flight in Vin Fiz, Pacific Ocean California, 1911. heinzhistorycenter.org*

Don't forget! AAWHG now has a LinkedIn page

Join your fellow industry personnel (205 as of April 2021, and growing) who are following the AAWHG on LinkedIn.

Click on the link above, or search for 'AAWHG' on the LinkedIn page to find it, and please like and follow us to keep up to date with the latest wildlife hazard management news and innovations.

Australian Museum data

AUSTRALIAN MUSEUM

To streamline reporting of wildlife airstrike incidents, users of the Australian Centre for Wildlife Genomics' (ACWG's) species identification service can elect to have copies of their reports forwarded directly to the Australian Transport Safety Bureau (ATSB).

Any ACWG clients who would like to take advantage of this service can send their permission via email to airstrike@Australian.Museum, or tick the relevant box on the casework request form. Any other enquiries about the ACWG's wildlife species identification service can also be directed to the email address above.

Did you know?

April anniversary of F-111 bird strike

It's been 12 years since the crew of an F-111 had a very lucky escape. On 11 April 2009, their F-111 aircraft was flying at 900m on a test bombing raid at Evans Head, northern NSW, when a pelican struck the fibreglass nose and was sucked into an engine.

Photo: *The nose of the F-111 after the strike in April, 2009. Credit: RAAF*

At the time, the crew was praised for their expertise in flying the disabled aircraft safely back to the RAAF base at Amberley, in Queensland.

This was only one of several devastating run-ins with pelicans suffered by Australia's RAAF F-111 fleet in the 70s to the early 2000s, when the aircraft was retired.

The outcome of the first such strike was, sadly, a different story. The 6 Squadron (RAAF Amberley) F-111 was on a similar sortie—a low-level bombing pass—on 29 September 1977, when a large bird (reportedly a pelican) flew through the windscreen.

In the RAAF's words, 'Crew module separation activated at approximately 520 knots whilst aircraft descending and outside survival envelope. Both crew—Squadron Leader John Holt (pilot) and Flt Lt A.P. "Phil" Noordink (pilot - undergoing conversion)—were killed.'

The accident demonstrated the vulnerability of the aircraft to bird strikes during low-altitude, high-speed operations, and laminated ADBRIT windshields were fitted to the entire fleet to prevent a recurrence.

This military accident remains Australia's only fatal birdstrike occurrence.

***Photo:** Australian F-111s on an exercise in the US, 2006. Credit: DoD Master Sgt Kevin J. Gruenwald, U.S. Air Force*

New committee members

The AAWHG is delighted to welcome new committee members representing Qantas–Simon Locke, Jetstar–Darren Meister, Virgin Australia–Rudy Smith/Ryan Hurley, and the Regional Aviation Association of Australia–Steve Campbell. We also wish former chair, Matt Bolin all the best in his new human factors' role with the Commonwealth Bank, and welcome back Ash McAlpine, CASA, as the new chair. Our new committee member representing Airservices was, at the time of writing, to be confirmed.

Feathered focus

This issue's feathered focus is one of Australia's three native ibis, the Australian white ibis, *Threskiornis molucca,* which is a protected species.

They are a very serious hazard to aircraft because of their size (males range from 1.7–2.5 kg and females 1.4–1.9 kg), and their flocking behaviour, tending to form flocks which can overfly or thermal over airports. They are also sociable birds, coming together in large roosting and nesting colonies which can number in the thousands.

***Photo:** An Australian white ibis in Darling Harbour, Sydney. Credit: Greg O'Beirne - own work, CC BY 2.5*

An $8 million ibis strike on a Qantas A300 in December 1995 at Coolangatta Airport was one of the key drivers behind the establishment of the Ibis Management Coordination Group (IMCG). The IMCG, comprising government, industry and community representatives, has just celebrated its 25th anniversary. The group instigated an integrated program of food reduction, restriction of breeding success and public education, and has been very successful in reducing ibis numbers to manageable levels.

For more information, see page 22 of the Australian Airports Association's Managing Bird Strike Risk—Species Information Sheets.

***Photo:** Australian Museum display of a B767-300 fan blade damaged in an Australian white ibis strike, April 2012*

PS: If you have a wildlife management story you would like to share, please email Margo Marchbank, *Plane Wild* editor via wordflyer@outlook.com