

Photo: Masked lapwing © Ian Wilson | BirdLife Australia

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The AAWHG workshop

The Australian Aviation Wildlife Hazard Group held its second biennial workshop on 23 and 24 July, generously hosted by Sydney Airport Corporation at the Kingsford Smith Suite in the International Terminal, and sponsored by Brisbane Airport Corporation, Australian Museum, Avisure and the IVM Group.

There was a very pleasing cross-industry representation for this year's workshop, with delegates from airports—large and small, Australian and New Zealand; airlines, Australian and NZ Defence forces, wildlife consultants, wildlife management service providers and suppliers; and regulators, from Australia and Thailand.

Over 70 took part in the two days of interactive workshop sessions, providing valuable feedback on AAWHG activities, and especially on the suite of

AAWHG draft recommended practices (RPs). Chair, Jackson Ring, said 'We will incorporate this valuable feedback and plan on finalising the RPs by the end of the year'. Discussion focused especially on the training and competencies for flight crew, air traffic controllers and aerodrome safety personnel, data collection and analysis and significant strike investigation.



Delegates at the 2019 workshop, including front row, second on left, Gary Cooke, president of the World Birdstrike Association, who travelled to Sydney from the United States.

Workshop themes

This multi-sector approach reinforced the workshop theme: 'Working Together for Aviation safety'. While wildlife hazard management is an airport regulatory requirement, a holistic (and effective) approach to safety requires involvement and action from all industry participants. The two-day program opened with a session on passive wildlife management, where case studies of vegetation and insect management trials at Brisbane, Darwin and Perth airports, highlighted the value of such a holistic approach.

Brisbane Airport Corporation found the one-hectare trial to be so successful they are extending it to 115 ha, and Perth Airport's management of the food chain for Nankeen kestrels has seen a pleasing reduction in kestrel strikes. In 2010 Kestrels accounted for 49 per cent of strikes, while today that figure is 20 per cent.

Did you know?

The majority of bird strikes occur at low altitudes: 50–60 per cent of bird strikes occur at zero to 50 feet, and 30 per cent between 50–500 feet.

An update on the National Airports Safeguarding Framework provided discussion on off-airport management and its impact to reduce wildlife strikes.

Wellington Airport showcased the methods and results of tracking black-back gulls, their highest risk species; and the ATSB presented an overview of drones and wildlife. Gary Cooke then gave an update on the World Birdstrike Association.

Day two of the workshop began with a detailed case study of a significant bird strike investigation, where a jabiru (or black-necked stork), which stands at 1.3m tall and has a wingspan of around 2m, was ingested into the engine of a B737-800. Noy Industries then showcased new non-lethal scaring technologies and IVM Group highlighted the remote insect monitoring traps on the market.

Following day one's RP workshop, another engaging, interactive and productive session was held on day two, with groups looking at the challenges facing remote/regional, large and defence airports. The workshop concluded with a visit to the Australian Museum. Groups hosted by Greta Frankham and Andrew King, Australian Centre for Wildlife Genomics, had the opportunity to see the work of the DNA laboratory first-hand, or a whirlwind tour of the Museum's wildlife exhibits, and the intriguing artefacts in the current exhibition, '100 Treasures of the Australian Museum'.

The Australian Museum

Wildlife is in their DNA

The technique of identification through DNA-based testing has entered the popular psyche because of TV shows such as *CSI*. The Australian Museum's Centre for Wildlife Genomics supports molecular-based research and provides a DNA-based diagnostic service to facilitate species identification, conservation and small population management. The aviation industry benefits from the DNA diagnostic service, which is invaluable in identifying struck species accurately, to enable more effective wildlife hazard management.

Dr Matthew Lott is a post-doctoral fellow at the Australian Museum, and also a member of the AAWHG's executive committee.

About 50 per cent of Matthew's work at the Australian Museum is commercial work on DNA samples sent to the Genomics Centre for testing, and that work is growing. 'More DNA samples are being

sent our way', he says, with the busiest months being during spring and summer. In the financial year 2017-18, the Museum processed 178 samples submitted from 13 airports, but he says he would like to see more. The Museum offers the aviation industry a substantial discount on sample processing, and he encourages airports and operators to submit samples so they can build a more accurate picture of species at their particular locations, as well as contributing to the accuracy of the broader ATSB database.

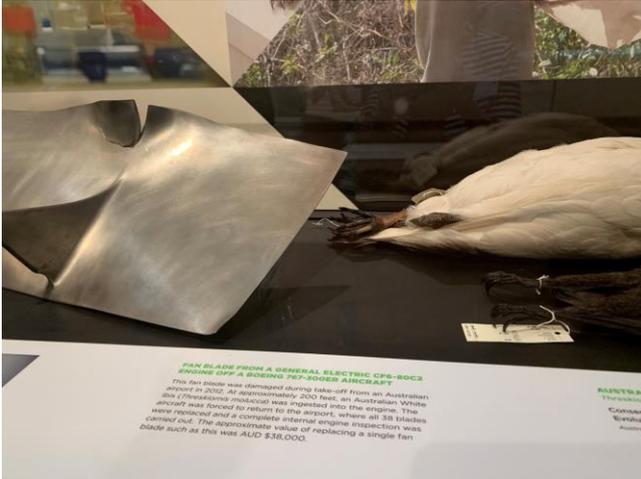


Photo: Australian Museum display of a B767-300 fan blade damaged in an Australian white ibis strike, April 2012

The Museum is uniquely positioned to provide this service, Matthew says, because of their ability to cross-reference samples in their growing reference database. The Museum has a unique database of over 21 million bird and bat species, so they are confident with this quality material of making an accurate identification.

Swab kits are provided free of charge to the aviation industry. To obtain these, or a quote for DNA identification services, email the Museum airstrike@austmus.gov.au



Wildlife Strikes and DNA Sampling: A How-To Guide for the Aviation Industry

The quality of the ID very much depends on the integrity of the sample taken, so there are some dos and don'ts for collecting, storing and shipping samples.

Collecting DNA samples

- Make sure you have obtained your free DNA kit to have on hand in the event of a strike. It will include all you need to collect a sample.
- Wear PPE such as gloves when collecting a sample to protect yourself and avoid contaminating the sample.
- Make sure the swab stick touches only the part of the aircraft the sample is being taken from.
- Label the swab appropriately after you have collected the sample.
- Include as much information as possible, including flight number and registration of the affected aircraft, strike date and time, and location of arrival/departure airport.
- Send the sample immediately, as DNA will degrade at higher temperatures.
- If this is not possible, store the sample in a cooler at lower temperatures, and preferably in a freezer, until you can send it to the Museum.

There is a [helpful video](#) covering these on the Museum's website.



Photo: © Graham Gall | BirdLife Australia

Did you know?

The word ‘snarge’, described by one writer as a ‘mildly unpleasant word for an equally unpleasant mess’, refers to the ‘remains of a bird after it has collided with an aircraft (bird strike), especially a turbine engine’.

One theory has it that snarge is derived from a combination of two words: ‘snot’ and ‘garbage’, but its precise origin is unknown.

The pilot and the ARO

Thanks to CASA and Virgin Airlines sponsorship, the AAWHG was able to offer two scholarships to regional aviation industry members to participate in the 2019 workshop.

The recipients, Esther Veldstra, a first officer with Alliance Airlines, and Kodi Sticklen, on the operations team at Kalgoorlie-Boulder Airport, are self-confessed aviation tragics.

Esther Veldstra’s aviation career was almost cut short before it began. Height restrictions in the Dutch national carrier, KLM, meant pilot training was out of



From left to right: Kodi Sticklen; Matt Bolin, CASA representative on the AAWHG committee; and Esther Veldstra

question in the Netherlands, her country of birth. At 163 cm, she was two centimetres shy of the requirement.

However, at 19 she found herself in Australia, heard about the GA industry (which didn’t really exist in the Netherlands), and realised that gave her a way to follow her dream. She signed up at Bankstown, and juggled jobs and study, completing a university degree

in Holland and flight training in Australia. She gained her commercial licence and instrument rating in 1995, and her air transport pilot’s licence the following year.

Esther has had plenty of experience with Australian wildlife, part and parcel of 10 years of GA flying in northern states, and 14 years’ flying for the Royal Flying Doctor Service (RFDS), mainly out of Port Augusta.

‘The RFDS has procedures to mitigate wildlife strike as much as possible,’ she says. ‘We did strip inspections for kangaroos—70 per cent of our flights were into regional non-certified aerodromes. There were internal NOTAMs for animals, but not for birds.’

Esther says she thoroughly enjoyed the workshop, and was ‘amazed by what was out there’, for both active and passive wildlife hazard management. ‘There are deficiencies with both pilots and operators’, she says. ‘We’re all working for the same goal—safe transportation of people from A to B, but often pilots don’t have wildlife training, and there is no real obligation for operators to provide it.’

Through AusALPA (the Australian Airline Pilots’ Association), Esther is actively involved with the AAWHG, and is looking forward to promoting wildlife hazard awareness and training for pilots and operators. ‘Regional operators cannot afford to have aircraft out of service for three days because of bird strike as I saw at Port Augusta,’ she says.

Kodi Sticklen, on the operations team at Kalgoorlie-Boulder Airport in Western Australia, was an aviation tragic at an early age—the backyard fence of his family home in Queensland was also the airport fence. He has been in Kalgoorlie for 10 years, and is a qualified boilermaker and fitter. However, he abandoned the lifestyle of a fly-in, fly-out worker travelling to remote places such as Meekatharra in mid-Western Australia (about 800 km from Perth), to take up a position in aviation.

He joined Kalgoorlie-Boulder Airport about 18 months ago, and is loving the operational side of aviation. Kalgoorlie has about eight to ten flights a day, with a mix of regular public transport, PC-12s operated by a trucking company out to the mines, charter companies flying in from Alice Springs, and the RFDS base at the airport.

Kodi’s goal is to move into operations management, and says the workshop was a great learning and networking opportunity. He was interested to hear a presentation about dealing with plague locusts—

Kalgoorlie has similar issues with locusts attracting Nankeen kestrels to the airport. Following the emphasis on passive wildlife hazard management, Kodi is keen to experiment with different cut heights of grass around the airport. However, that might be a challenge, he says, being in an arid part of Australia, there's not much grass.

After the visit to the Australian Museum's DNA lab, he has also ordered some swab kits for the airport, as 'we don't have facilities to identify struck species through DNA samples'.

The AAWHG committee ... part 2

The AAWHG is fortunate to have a very active committee of volunteers, who between them offer some amazing expertise, and represent a broad spectrum of industry.

In this second issue of *Plane Wild*, we take a closer look at two committee members who hold important key roles: the secretariat and the treasurer. These are ably performed by Donna Kerr and David Anderson respectively.



AAWHG secretariat, **Donna Kerr**, works in the Airport Safeguarding team within the federal Department of Infrastructure, Transport, Cities and Regional Development.

The team's work currently includes:

- Secretariat support for the National Airports Safeguarding Advisory Group (NASAG)
- working with states and territories to support and oversee implementation of the existing National Airports Safeguarding Framework (NASF), as well as developing additional guidelines for NASAG to consider
- administering the Airports (Protection of Airspace) Regulations 1996 relating to high obstacles which may affect an airport's prescribed airspace

- advising stakeholders on aviation-related land-use planning issues, leased federal airport master plans and major development planning.

Qualified in statutory compliance, investigations, and environmental law, Donna joined the Australian Public Service in 1998.

Since then, Donna has worked on aircraft noise issues arising from the opening of the third runway at Sydney Airport, the environmental impact statement for Badgerys Creek Airport, privatising of federal airports, development of the National Airspace System, legislation to phase-out hush-kitted aircraft operations in Australia, and adventure flight and warbird noise-related legislation. Most recently, she co-authored Guideline H (Protecting strategically important helicopter landing sites) of the NASF.

Donna has experience in environmental issues relating to the work of the International Civil Aviation Organization (ICAO) and the Asia-Pacific Economic Cooperation (APEC). She is currently the nominated Australian representative on the ICAO Asia/Pacific Wildlife Hazard Management Working Group, and joined the AAWHG committee in 2017.

AAWHG treasurer, **David Anderson**, has over 38 years of aviation experience involving military, commercial and general aviation in maintenance, flight crew, check and training, quality and safety systems auditing and management.

David is the managing director of the Flight Safety Foundation's BARS (Basic Aviation Risk Standard) program and responsible for the growth and development of the BAR standard and supporting audit program.

David completed an MBA in 2014-2016, and has hands-on experience in project management, risk management, training delivery, safety management systems and auditing

Did you know?

There are two words of ancient classical origin which are significant to the safety of pilots, their aircraft and passengers: 'cumulonimbus' and 'pteropus'. If you're a pilot, do you know what they mean?

It's a pretty safe bet that you know from your basic met training to have a healthy respect for 'cumulonimbus'.

The word comes from the Latin ‘cumulus’ meaning ‘heaped’ and ‘nimbus’ meaning ‘thunderstorm’. They are, of course, the ‘dense, towering vertical clouds, which are capable of producing lightning and other dangerous severe weather, such as tornadoes and hailstones’.

How did you go with ‘pteropus’? They’re something pilots should have an equally healthy respect for, and understanding of: the genus of megabats/large bats, commonly known as flying foxes or fruit bats. The word comes from the ancient Greek ‘pteron’ wing, and ‘pous’ meaning foot.

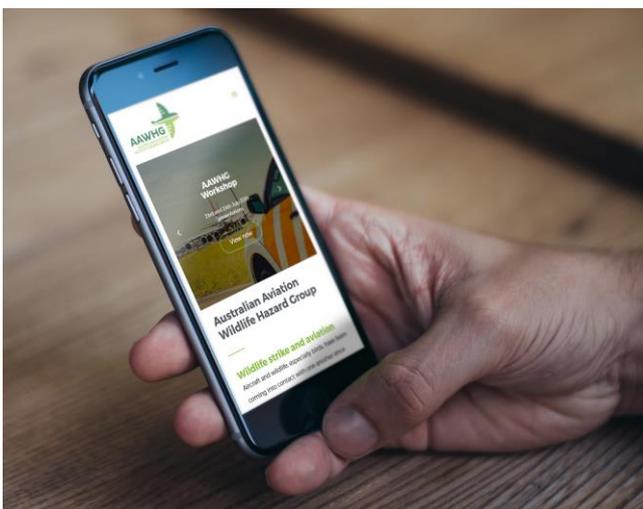
And, according to the [2008–2017 ATSB wildlife strike report](#), over the ten years between 2008 and 2017, 464 flying fox strikes and 582 ‘bat’ strikes were reported to the Bureau.

The report says ‘It is likely, however, that many of the strikes involving animals reported as “bats” actually involved flying foxes’. If that is the case, then that makes ‘pteropus’, at a possible 1046, the most commonly struck species, ahead of galahs at 801.

New website for AAWHG

New look, more accessible www.aawhg.org

The AAWHG has a refreshed and updated website, due for launch in mid-August. The website has been designed to work effectively across various platforms, regardless of whether you’re accessing it via your desktop, laptop, tablet or smartphone.



New features include a graphic overview of bird strikes over the past 25 years, statistics on the parts of

an aircraft most commonly struck, and at what altitudes and locations these occur.



Thanks to BirdLife Australia, the web page headers also feature some striking images of the most commonly struck bird species, such as masked lapwings (plovers) and galahs. In this newsletter, there are also two images courtesy of BirdLife Australia; the AAWHG is grateful to have images of this quality.



The resources section of the website has also been reorganised, and we hope to make it a ‘one-stop shop’ for wildlife hazard management information. Watch this space!

We are also planning on offering suppliers advertising on the website, either in the supplier’s section, or for special events or product launches on the sliding images on the home page. If you are interested in taking up this offer, please email info@aawhg.org

Please note: you can find presentations and photographs from the 2019 workshop [on the new site, under the events tab.](#)