EWDA
European
Wildlife Disease Association

EWDA NEWSLETTER

WINTER 2019

CONTENT

ON THE COVER

Barn owl (*Tyto alba)*

Cover photo by **Josh Jaggard**, wildlife photographer
Website: click here Twitter: click here Vimeo: click here

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President´s Corner

Already is the winter back and many of us are moving around like busy bees, hoping to finish tons of work before Christmas or, at least, before the new year starts. I can't believe how fast 2019 has passed!...

Last week we had the first snow in Bern, but soon after, days became very mild again. Snow recently felt on Tasmanian mountains while fires have been and continue to be burning in the region of Sydney. Very strong winds and floods have caused dramatic damages in Southern France, with people who died, were injured or disappeared. Climate change is remaining a big topic difficult to address in term of wildlife diseases, in part because long term data needed for comparison with weather data are largely lacking. This underlines once more the need for, and the value of, wildlife health surveillance programmes and sample archives, as well as the relevance of the efforts done by our Sustainability Committee.

As concerns major wildlife health events in 2019, major outbreaks of tularemia with hundreds of human cases occurred in Sweden and Norway, first cases of Chronic Wasting Disease were detected in Sweden, and African Swine fever has recently taken a jump towards the eastern border of Germany.

EWDA members who attended the WDA conference 2019
from Austria, Belgium, Denmark, Norway, Spain, Sweden, Switzerland, UK.

A more joyful event this year has been the international WDA conference at Lake Tahoe, California. Apart from the scientific and side programmes and from the usual WDA business, various discussions took place between EWDA and WDA representatives about the organisation of the upcoming joint meeting in Spain.
EWDA members were well represented at the conference dinner, including the attribution of two awards and the official beginning of the term of the incoming WDA president (Carlos das Neves, Norway).

Our Spanish colleagues are working hard to prepare the joint WDA/EWDA conference in Cuenca late August/early September 2020. I encourage you to book the dates and consider joining this promising event, where very many people sharing the same passion for wildlife in general, and for wildlife health in particular, will gather to exchange the latest information in this field, learn more, meet good friends, and have fun. I am already looking forward to seeing you there.

Last but not least, I warmly thank all Board and Committee members for the time they have dedicated to the functioning of the EWDA and for the nice collaboration.

I hope you all have had a **Merry Christmas** and a **Happy New Year**!

Marie-Pierre Ryser
EWDA Chair
FIWI, University of Bern

News from the Board

"EWDA Board – summer + autumn 2019"

EWDA Small Grants

As 2019 was a non-conference year, calls went out to apply for the EWDA Small Grants to support projects undertaken by EWDA members. A number of proposals were received and are currently under review.

WDA membership renewal

Some weeks ago WDA sent out reminders for the annual membership renewal – please remember to also update your contact details if changes did occur. Simply log in the member section of the WDA website. WDA provides us with updates on EWDA members on a monthly base, allowing us to provide you with the latest information on EWDA matters or conference calls.

While renewing your membership, please also consider to make a donation to the "Vic Simpson EWDA Conference Attendance Fund". This grant was founded by Vic Simpson to aid EWDA members to be able to join our conferences to meet colleagues and friends even if the personal situation would not allow the expense.

There are very exciting news regarding WDA membership benefits: Starting from January 2020 WDA members will get access to all BioOne journals, comprising more than 120 scientific journals – all available for your interest and personal education. And did you know? WDA membership will also allow you the publish your research manuscripts for reduced author charges in the Journal of Wildlife Diseases.

Particularly busy currently are the EWDA folks around and including Fran Ruiz Fons in Spain as the big joint WDA/EWDA conference is approaching in August 2020. The conference will be held in the city of Cuenca located in the centre of the country. A 50 min train ride from Madrid or Valencia will take you there.

The EWDA Student Chapter held another remarkable student workshop and symposium in Lyon this summer and again managed very successfully to finance their event solely by sponsorship. Their efforts were welcomed by 120 students for the symposium and 40 students for the workshop.

Well done all of you!

Gudrun Wibbelt
Leibniz Institute for Zoo and Wildlife Research, Berlin, Germany

Carbon offsets for air travel

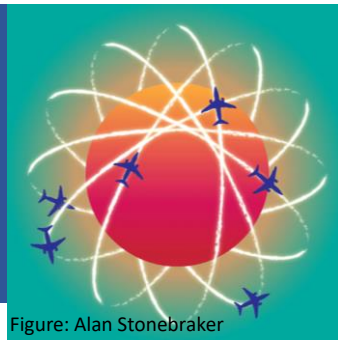


Figure: Alan Stonebraker

"Air travel often is a big component of a scientist's carbon footprint"

The average EU citizen has a carbon footprint of 6.4 tons CO_2 per year. In order to achieve the 2015 Paris Agreement's goals of keeping global warming to 2°C (and if possible 1.5°C) above the pre-industrial level, each person on Earth has a yearly budget of about 2.3 tons CO_2 (www.atmosfair.de). To keep to this budget, the average citizen of Europe therefore needs to reduce her or his CO2 emission substantially, a daunting task. There are several ways to do this, including reducing consumption (e.g. eating less meat, driving and flying less) and optimizing the use of resources (e.g. buying less things, insulating your home better, unplugging electrical devices, line-drying clothes, planting a vegetable garden) (www.ce.nl).

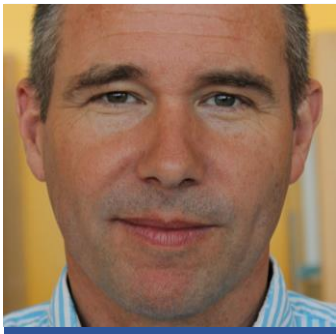
Air travel often is a big component of a scientist's carbon footprint, because scientists tend to fly more than the average citizen in order to conduct research and attend meetings (Stroud & Feeley, 2015. Ecography 38, 402–404). For example, just one return trip from Amsterdam to Singapore adds another 4.9 tons CO2 to your annual quota (www.atmosfair.de). Looking at it from the positive side, air travel often is not essential, so that flying less is an easily available means to reduce carbon emissions.

If you do need to fly for whatever reason, you can reduce your negative impact (and ease your conscience) by buying carbon offsets. With carbon offsets you ensure that, in exchange for the CO_2 emissions that you cause, less CO_2 is emitted elsewhere or CO_2 is removed from the air. In this way, you compensate your CO_2 emissions.

You can calculate the CO_2 emission of your flight on several freely available calculators on the internet, e.g. carbonfootprint.com, climatecare.org, myclimate.org, and carbonfund.org. The outcomes of these calculations differ somewhat, because of different calculation methods. My preferred calculator is on atmosfair.de, because it is precise, provides many details, and explains the methods well. Also, this calculator indicates which airline has the lowest CO_2 emission for a given route. Once you have calculated the CO_2 emission of your flight, there are different ways to buy carbon offsets. The easiest way is to pay for it when you buy your flight ticket. However, you are then limited to the projects offered by the airline. An alternative is to pay directly to a project that is either involved in reducing CO_2 emission or in CO_2 removal. Different countries offer different projects.

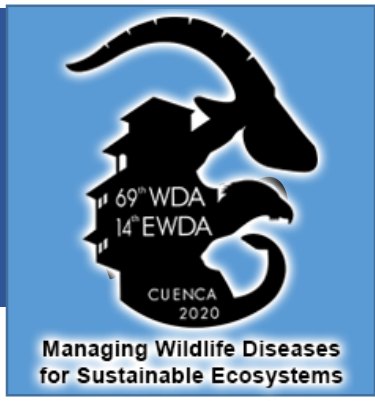
There are different ways in which CO_2 compensation works. In general, you pay money to support projects in developing countries, because the cost-benefit ratio for reducing CO_2 emission is the most favourable there, i.e. your money will buy the highest reduction of CO_2 emission. The projects may have a variety of aims, including using energy more efficiently, changing from fossil fuels to renewable energy sources, providing education on energy use, and restoring forests. Which project you fund will depend in part on your personal preference. However, one criterion to keep in mind is whether the project has a Gold Standard (www.goldstandard.org), which is an international certification for carbon offsets.

Of course, buying carbon offsets to compensate for flying is just a stop-gap measure. If we really want to make the transition to a sustainable society, we should fly less, or not at all.



Thijs Kuiken, for the EWDA Sustainability Committee: Lineke Begeman, Alexia Coles, Emmanuelle Gilot-Fromont, Jorge Lopez Olvera, Graham Smith, Ana Vale, Barbara Vogler

Greening the 2020 WDA/EWDA conference in Cuenca, Spain



"transformative changes towards sustainability"

In August 2020, hundreds of people interested in wildlife health will come together to take part in the joint 69th WDA and 14th EWDA conference in Cuenca, Spain.

Old friends will meet again, new friends will be made, knowledge and ideas will be shared, and joint projects will be conceived to improve wildlife health and support nature conservation. One of the reports that will be discussed is the IPBES Global Assessment Report on Biodiversity and Ecosystem Services (https://ipbes.net/), which states: "Goals for conserving and sustainably using nature and achieving sustainability cannot be met by current trajectories, and goals for 2030 and beyond may only be achieved through transformative changes across economic, social, political and technological factors."

The large ecological impact of scientific conferences provides a good opportunity for us to make such transformative changes towards sustainability. The EWDA Membership was asked to come up with ideas for reducing our ecological impact, and the EWDA Sustainability Committee started evaluating and calculating CO_2 costs of previous conferences. The estimated carbon emission per participant of the previous joint WDA/EWDA conference in Lyon in 2012 was 2 tons CO_2-equivalent, which is about 25% of the average carbon emission per person in the European Union during a whole year. More than 90% of the carbon emissions of that joint conference were from air travel. The Organizing Committee proposes several actions to decrease and compensate the carbon emission of the Cuenca 2020 joint WDA/EWDA conference.

First, reduced fees on national railways will make travelling by train more attractive for people living relatively close to Spain. To give one a better idea about carbon emissions from travel by train versus travel by air: for a one-way trip from Paris to Madrid (~1280 km), travelling by train (~15 kg CO_2-eq per person) emits 24 times less carbon than travelling by plane (~360 kg CO_2-eq per person) . Thus, taking the train achieves a reduction of over 300 kg CO_2-equivalent, comparable to the CO_2 storage of 15 growing trees over a year. Second, people who will travel by air for various reasons, carbon offset options will be available. For this purpose, conference participants will be able to donate a voluntary fee at the time of registration. On the one hand, planting events will be carried out by EWDA volunteers in local areas recently affected by fires, within the frame of already existing reforestation projects. A target of 1,000 trees should compensate the estimated carbon footprint of the Cuenca 2020 conference over a 40-year period. Finally, attendants will be encouraged to share particular vehicles in case of choosing this option as mean of transport to reach the meeting. On the other hand, these donations will contribute to internationally certified CO_2 reduction programs (www.goldstandard.org).

The new EWDA Responsible Travel Award will give some tongue-in-cheek attention to the travel issue. This award is for the person or persons who have travelled to Cuenca in the most imaginative and (oh, yes) sustainable way, and are able to provide the most amusing report about their trip. The winner of this award will be allowed to look after EDWART, the amazing plastic yellow reindeer that is certified CWD-free.

(continued on next page)

Greening the 2020 WDA/EWDA conference in Cuenca, Spain (Continued)

Besides travel, the Organizing Committee has planned to experiment with other transformative changes (based in part on suggestions from the EWDA membership) to reduce the ecological impact of the conference. Conferences and meetings generate an estimated amount of about 2.8 kg of waste per person per event (https://www.hopesolutions.services/resources/). Therefore, conference participants are asked to bring their own mugs for coffee breaks in order to avoid the use of single-use glasses and cups. For those people who forget or willing to get a souvenir, the Student Chapter will have reusable mugs for sale, with all proceeds going to student activities. Likewise, the traditional attendant kit provided will be sustainable and reduced to the minimum; the program, activities, abstracts and advertisements will be communicated through a specific meeting APP.

Choice of diet can have a big effect on ecological impact. A diet without animal products substantially reduces land use (76%), greenhouse gas emissions (49%), acidification (50%), eutrophication (49%), and freshwater withdrawals (19%) compared to current diet (Poore and Nemecek 2018). Therefore, all meals at the conference will have a vegetarian option, and attendants will be asked about the possibility of holding a full vegetarian day during the meeting.

Types of accommodation differ greatly in ecological impact, and 55% reduction in carbon emissions (from 6.9 to 3.1 kg CO^2 per person per night) can be achieved (http://www.epe2013.com/index.php?page=how-carbon-emission-is-computed). The reduction for a four-night stay is almost 15 kg CO_2 per person, which is equal to travelling 1,200 km by train, or 80 km by car. In general, the more luxurious the hotel, the greater the ecological footprint: less stars, more eco-friendly! Hotels in Cuenca will be asked to provide information on their sustainability activities, so that conference participants can take this into account when choosing accommodation. Student participants mainly will be given the option to stay together in the University residency, both to reduce environmental impact and to enhance international exchange.

This is a non-exhaustive list of the measures planned to reduce the environmental impact of the conference and create awareness among the attendants and the local community. In this way, the Organizing Committee hopes that all participants will collaborate to maintain the benefits of its conference, while reducing its costs for nature.

The 69th WDA/14th EWDA Joint Conference Organizing Committee, and the EWDA Sustainablitly Committee

Submitted by Jorge López Olvera

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Nordic Wildlife Student Symposium

Students gathering to learn about Nordic wildlife

On the 6th to 8th of December students from all over Europe gathered for a fun and worthwhile weekend in Copenhagen! The reason for it was a student symposium organized by EWDA Student Country Representatives from Denmark, Norway and Sweden. The main theme for the symposium was Nordic wildlife and the idea was to bring together students from different disciplines in order to discuss and learn more about Nordic wildlife and the challenges as well as the importance of interdisciplinary work. Although most of the attendants had a background in veterinary medicine, we were also happy to be joined by students from different fields such as ecology, conservation and forestry management, to mention a few.

The symposium took place at the University of Copenhagen at their beautiful historical campus in Frederiksberg. Some of the subjects discussed during the event were human wildlife conflicts, interdisciplinary work, the role of zoos in wildlife conservation, ecosystem health, climate change and emerging diseases in the North. Lectures by speakers from all over Scandinavia were combined with interactive group work where the students were encouraged to work on different cases based on real life situations from the field. As always, there was also time to meet old and new friends from the EWDA family! Many students also took the chance to explore the exciting city Copenhagen during their visit.

The symposium was initiated by Miriam Dibbern, country representative in Denmark, during the summer of 2019. The idea had been growing in her mind for quite some time and while visiting previous EWDA student symposiums and workshops she had been inspired to create something similar within the Nordic section. Besides our studies, work and clinical rotations everyone in the organizing committee have worked hard to create this symposium and we were thrilled by the amazing response we received from both speakers and attendants.

With such a tight time schedule, we never imagined to be able to put together an event like this. Therefore, we would like to thank everyone who participated and made this symposium possible. This includes sponsors, our amazing speakers and participants likewise! We hope everyone had a great time and we are not only happy and proud of creating this symposium but also thankful for the response we received from everyone. Our vision is to continue this as a tradition to keep on bringing students and professionals together in order to ensure the next generation of wildlife researchers tackling the challenges within our field.

We hope to see you next time!

Nordic Wildlife Student Symposium Organizing Committee

Miriam Dibbern (KU), Hans Kristian Mjelde (NMBU), Jennifer Høy-Petersen (NMBU) and Johanna Johnsson (SLU)

3rd Summer School for ECZM Residents in Wildlife Population Health

From the 16th to the 20th of September 2019, five of the six current Residents in Wildlife Population Health of the European College of Zoological Medicine (ECZM-WPH) and 10 international students attended the BaltHealth Summer School in Büsum, Germany.

The interdisciplinary programme was mainly put together by Prof. Ursula Siebert at the University of Veterinary Medicine Hannover, Foundation, in collaboration with the University of Aarhus (Prof. R. Dietz, Prof. C. Sonne). The BONUS funded BaltHealth Project investigates multilevel health impacts of anthropogenic hazardous substances on Baltic Sea key species (marine mammals, birds, fish, molluscs). The areas covered included Baltic marine ecosystem health, ecotoxicology, infectious diseases of marine mammals, food web dynamics, marine mammal reproductive biology, biomarker development, standard microbiology methods, molecular analyses, necropsy, outreach, seal management and tagging on Helgoland.

WPH residents performing a harbour porpoise necropsy

In practical labs, bone density measurements, seal and porpoise reproductive organ examinations and histology, PCR, chemical risk assessments and standard/selective culturing of bacteria were performed. Additionally, we performed post mortem examinations of two harbour porpoises, an Eurasian otter, a grey seal and Pacific oysters.

Observing grey seals during the field excursion to Helgoland

During the excursion to the German high sea island Helgoland, we got to observe harbour porpoises, grey and harbour seals in their natural habitat and learned about human-wildlife conflicts on the island.
The BaltHealth Summer School was a great experience for all participants, the scientific programme was broad and allowed the students who are based at different universities in several European countries to gain a common basic understanding and knowledge on Baltic Sea ecology and health indicators.

The next ECZM-WPH Resident Summer School still needs to be planned, but we sincerely hope that these great learning opportunities will become an annual tradition. Special thanks to BONUS, the BaltHealth partners, Ursula, Steph, Anja and the ITAW colleagues for the organisation and hosting of the 2019 Summer School!

Prof. Dr. Ursula Siebert (TiHo, Germany), Maja Lukac (University of Zagreb, Croatia), Simone R. R. Pisano (FIWI, Switzerland), Stephanie Gross (TiHo), Anja Reckendorf (TiHo) and Rosa Jolma (ZSL/RVC, UK)

The Italian Wildlife Disease Surveillance Network (2009-2018)

The aim of this work is to show the result of the data collection carried out between 2009 and 2018.The reporting activity is based on data collection from referents for wild animal diseases throughout Italy. The most frequently reported diseases were West Nile fever, Newcastle disease, Trichinellosis, Brucellosis* (B. suis*) and Salmonellosis.

INTRODUCTION

As infection diseases in wildlife can interfere in the health of domestic animals, of humans and wild populations, it is important to detect diseases and monitor their temporal trends and spatial distribution. In Italy, a wildlife diseases network has been set up with the aim of collecting basic, valid and relevant information. The network involves laboratories throughout the country located at the Istituti Zooprofilattici Sperimentali (IZS) and refers to the National Reference Centre for Wild Animal Diseases (CeRMAS). The aim of the work presented is to illustrate, with the tools of descriptive epidemiology, the result of the data collection carried out over 10 years of activity (2009-2018).

METHODS

Every year, on the basis of the reporting activity of a team of referents for wild animal diseases, the CeRMAS, on behalf of Ministry of Health, collects and analyzes data about the presence of wild animal diseases. Local samples of any wild species are examined in each IZS regional lab; animal data and diagnoses are entered by the IZS referents in spreadsheet files and periodically sent to CeRMAS. National data are processed and, based on the OIE request of data in qualitative and quantitative forms, are used to fill the "OIE Wild animals diseases questionnaire". Then the overall Italian questionnaire is sent to feed the OIE World Animal Health Information System. Data from 2009 to 2018 are considered here.

RESULTS

During the 10 years of data collection the volume of work was remarkable: 4,096 notifications have been made regarding 75 different diseases belonging to the two OIE lists (OIE listed diseases affecting wild animals, Non-listed pathogens and other disease-causing agents in wildlife) with a number of notifications which has been increasing over the years. 71 animal families, and 188 species have been investigated; the Suidae family is the most common, with 807 notifications, followed by Canidae (706, mainly fox and wolf) and Cervidae (459 roe deer, red deer and fallow deer). The most frequently reported diseases were West Nile fever, Newcastle disease, Trichinellosis and B. suis (diseases belonging to the OIE list) and Salmonella enterica, Pasteurella and Morbillilivirus Infections, Sarcoptic mange and poisoning in several species (diseases not belonging to the OIE List).

CONCLUSION While taking into account the peculiarity of wildlife and limitations of surveillance systems, we were able to set up an efficient information system that is structured, standardized and computerized. It allows the description of the overall national epidemiological situation. This Italian surveillance network, born thanks to the OIE stimulus, provides insights in wildlife and helps to effectively manage potential problems such as zoonotic and emerging diseases (TBE), domestic livestock and wildlife interaction (Brucellosis) and species conservation (Pestiviruses).

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Riccardo Orusa[1,2], ***Serena Robetto***[1,2], **Bona Maria Cristina**[1]

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[2] *National Reference Centre for Wild Animal Diseases (CeRMAS), Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta, Aosta, Italy.*

Tularemia in hares and humans in Norway and Sweden 2019

A major zoonotic outbreak of tularemia was documented in 2019 in the Scandinavian peninsula

The Norwegian Veterinary Institute has by the mid of December 2019, diagnosed tularemia (infection with *Francisella tularensis* subspecies *holarctica*) in totally 16 of 32 (50%) wild hares examined in Norway. The number of cases was unusually high in the early summer, showing a peak in July, while the disease in hares normally peaks during autumn. The tularemia cases mainly originated from the south-eastern part of the country (the counties of Østfold, Hedmark, Oppland). Fourteen of the cases were mountain hare (*Lepus timidus*) and two were European brown hare (*Lepus europeus*). Standard diagnostic procedures for tularemia include pathological examination and real-time PCR of liver and bone marrow. When tularemia is diagnosed in a hare, the Norwegian Food Safety Authority and the local public health authorities are informed.

In Sweden, the largest outbreak of tularemia in humans since the 1960´s occurred in the summer and autumn of 2019, with over 960 human cases at the end of September. The Swedish outbreak also affected hares with over 150 confirmed diagnoses or reports, with a high number of cases in the coastal area of Northern Sweden, but also some cases also from further south in Sweden (Blekinge county) than previously documented. An interactive map of reports and confirmed cases of tularemia in hares can be found at https://www.sva.se/smittlage/karta-over-harpest.

The main hare species in Norway is the mountain hare found in most parts of the country, whereas the European brown hare is distributed only in the most south-eastern part (Østfold). Tularemia is sporadically diagnosed in hares (2018: 7 cases; 2017: 17 cases (4 captive); 2016: 6 cases, respectively). The situation in Sweden mirrors Norway.

The number of cases normally show an annual variation with the highest numbers in years with peaks in the small rodent populations like lemmings (*Lemmus lemmus*). In 2019, however, this correlation was not so clear in Norway, thus, other factors must be taken into consideration. The number of human cases in Norway (179, the Norwegian Surveillance System for Communicable Diseases) has also been higher than normal, with a main geographical distribution similar to the hare cases. Insect bites have been an important route of human infection in 2019, according to the Norwegian Institute of Public Health.

Erik Ågren

Swedish National Veterinary Institute, Uppsala, Sweden

Turid Vikøren, Knut Madslien, Jørn Våge

Norwegian Veterinary Institute, Oslo, Norway

Call for applications: The Vic Simpson´s Travel Grant 2020

Application deadline: January 31st, 2020.

The EWDA Conference Attendance Fund is based on a very generous donation by the late Vic Simpson. The grant has been specifically created to encourage non-student colleagues with limited finances (no institutional support) to attend our biennial EWDA conference.

The Vic Simpson Travel Grant will be attributed each EWDA conference year. The fund is not intended for students as there are separate funding schemes to support them. Particular priority will be given to colleagues who are 1) largely (or solely) self-financed, 2) will give an oral or poster presentation, and 3) have been EWDA members for at least 12 months prior to applying.

The grant is intended to cover conference registration and reasonable travel costs; it is not intended to cover accommodation or meals but will hopefully defray costs sufficiently to enable attendance at the conference for colleagues who would otherwise be unable to do so. Further details on this funding scheme and application material are available from the EWDA website at: http://ewda.org/ewda-conference-attendance-fund/. **The deadline for applications is January 31st, 2020**

We remain very grateful to Vic, who sadly passed away in summer 2018, for his very generous support, which we hope will help many of our colleagues to join us at our conferences. Vic wished that the Fund would continue thank to donations, since it would decrease and disappear as grants would be attributed to EWDA members. If you are willing to support the funding of colleagues in need and/or to contribute to Vic's generous initiative, remember that you can make a donation to the Fund when you renew your WDA membership!
/Marie-Pierre Ryser

Dr. Vic Simpson, a wildlife veterinary pathologist who used to run the Wildlife Veterinary Investigation Centre in Cornwall, England, has dedicated his career to investigating infectious and non-infectious diseases affecting a wide range of British species, and has made tremendous contributions to this knowledge. In 2016 he received the Wildlife Disease Association's (WDA) prestigious Emeritus Award, which recognises a lifetime contribution from a WDA member to the wildlife health professions. The WDA considers that Vic has influenced and inspired countless students and members in this field. In 2017, Vic was also awarded the International Otter Survival Fund 2017 'Special Award for Lifelong Commitment' to otter conservation. A long-time member and friend to the EWDA, in 2017 Vic did a very generous donation to create the new EWDA Conference Attendance Fund.

TIP!
To check out a great educational video by Vic Simpson on a bird necropsy, go to https://www.youtube.com/watch?v=57P3joNMGvA