October 2014

Australian Registry of Wildlife Health Celebrates Two Birthdays!

Karrie Rose, Australian Registry of Wildlife Health, Taronga Conservation Society Australia

For those of you unfamiliar, the Australian Registry of Wildlife Health is a diagnostic and resource centre for wildlife health, founded as a collaboration between Taronga Conservation Society Australia and the University of Sydney in 1985. The Registry has grown to include collaborations across Australia and overseas.

It was with great pleasure that we celebrated the 95th birthday of Dr. Bill Hartley this June. Bill started the Registry after initiating similar pathology collections at departments of primary industry in New Zealand and NSW.

And next year we will be celebrating the Registry's 30th birthday. We hope that you will help us to plan and celebrate the occasion.

Registry 30th Birthday Plans: Rather than celebrate the Registry’s 30th Birthday all on one day, we have opted to spread the joy across the entire year. Some of the ways that we intend to celebrate the occasion include:

- Making the Wildlife Pathology Short-Course videos available
- Making whole scanned glass slide teaching sets available
- Conducting the first Wildlife Pathology Workshop in conjunction with the 2014 Wildlife Disease Association Australasia conference – Tidbinbilla, Sept
- Gathering and making available the career publications of esteemed Australian wildlife veterinarians and pathologists, available now: Bill Hartley, Roger Kelly, Barry Munday.
- Developing a commemorative video – “The Registry Then and Now”

WDA SMALL GRANTS PROGRAM 2015

WDA Small Grants Committee: Carol Meteyer, Ian Barker, Ezequiel Hidalgo, Julie Langenberg, Bonnie Raphael, and Lisa Yon

The WDA Small Grants Program is an opportunity for members of the WDA to contribute to the WDA mission “to acquire, disseminate and apply knowledge of the health and diseases of wild animals in relation to their biology, conservation, and interactions with humans and domestic animals”. The first year of the WDA Small Grants Program was a success, with sixteen proposals received. The Committee selected the proposal for a Special Supplement to the Journal of Wildlife Diseases: ‘Field Techniques that Improve Animal Welfare’. This proposal was submitted by Kevin Castle, Peregrine Wolff, Sonia Hernandez, Jon Arnemo, Nadine Lamberski, and Dan Mulcahy, and was kicked off by a special session at the 2014 WDA meeting focusing on wildlife welfare issues and sponsored by the American Association of Wildlife.
Veterinarians. Kevin Castle is currently soliciting contributions to this Special Supplement (Kevin Castle aawvsecretary@gmail.com).

The Small Grants Committee will be sending out a call for new proposals in early November this year using the WDA blast emails, the WDA website, and the WDA Newsletter. The available funding is $11,000 which can be used to fund multiple proposals. The deadline for submissions will be January 15, 2015. Guidelines and criteria used for scoring proposals will be detailed on the WDA website but briefly, the projects must support the Mission of the WDA. They must be completed in one year; must have defined and measurable goals; must not involve research, laboratory, or field studies; and must have a project leader who is a WDA member.

The committee will look favorably on proposals for activities which will impact the widest possible audience. Proposals that might fit the criteria for Small Grants awards would include projects that develop, archive and make available wildlife teaching materials; compilations of on-line sources of scientific information for member use; financial support for Section meetings or general membership symposia; curation of valuable collections of wildlife disease resources; capacity-building or creative outreach that enhances and benefits the WDA membership; and translation of wildlife health information to reach out to under-represented countries. These are just examples and we look forward to the creative ways that our membership can find to further the mission of the WDA.

We appreciate your enthusiasm for the Small Grants Program and look forward to receiving your proposals in a few months.
The EWDA has continued to grow since the joint WDA/EWDA conference in Lyon, France in July 2012. As of August 2014, there were 194 members from Europe (not including 57 members in the Nordic section); this is an increase of 32 members over this time last year.

The current board (2014-16) consists of: Lisa Yon (Chair), Christian Gortazar (Past Chair), Erik Agren (Vice Chair), Karin Lemberger (Secretary), Philippe Berny (Treasurer), Marc Artois (Accounts Officer), Rogier Bodewes (Website coordinator), Paul Duff and Lidewij Wiersma (Newsletter editors), Steven van Beurden (Student activities), Estelle Rousselet (Student representative), Vic Simpson (Research advisor), Karoly Erdelyi and Marie-Pierre Ryser (Eastern countries communications), and Miriam Maas (Member-at-Large). The Board had teleconferences on 9 September 2013 and 18 March 2014, and a face-to-face Board meeting on 26 August 2014 at the EWDA conference in Edinburgh.

In response to the recent incursion of African swine fever (ASF) into the European Union (in Lithuania and Poland), a Workshop on African Swine Fever in Wild Boar was held from 6 to 7 March 2014 at Uppsala, Sweden. The workshop was organized by the European and Nordic sections of the Wildlife Disease Association, and the Swedish National Veterinary Institute (SVA). Over 80 people from 17 European countries participated. Presentations from this workshop are available on the EWDA website.

August 2014 saw a very successful 11th EWDA conference held in Edinburgh, Scotland hosted by the University of Edinburgh. The organizing committee was led by Professor Anna Meredith of the Royal (Dick) School of Veterinary Studies and Professor Michael Hutchings, Head of Disease Systems at SRUC (Scotland’s R Systems college). There were approximately 220 attendees, some of whom came from as far away as Australia (thanks to our colleagues for travelling such a long way!). The EWDA particularly appreciated attendance by colleagues from the WDA, including Dave Jessup and Charles van Riper. Their presence helped to strengthen the links between the European section and the parent organization. It also served to highlight for all members that the EWDA is part of a global Wildlife Disease Association. At the conference, the Distinguished Service Award was given to Marc Artois, in recognition of his substantial work in furthering the aims of the WDA through his teaching, research and other activities.

The EWDA Student Chapter has had a busy and successful year. The current Chair of the student chapter is Estelle Rousselet. Past-Chair is Lidewij Wiersma, and the Student Workshop Coordinator is Catharina Vendl. The workshop at Annecy, France in April 2013 was as successful as it has been in previous years. This workshop, with top scientific presentations, has proven to be a spring-board for many students in their wildlife health careers. The next student workshop will take place 26-29 March 2015, and the topic for the workshop will be “Human drivers of emerging diseases”. However, locating funding for the workshop is proving challenging, and the Student Chapter is exploring many possible avenues to generate the required funds, including a request for voluntary contributions from Wildlife Disease Association members when renewing their WDA membership.

Wildlife disease projects funded by the EU (European Union) are an important means of collaboration and communication for EWDA members. Recent projects have included Antigone (Anticipating the Global Onset of Novel Epidemics); APHAEA (harmonised Approaches in Monitoring wildlife Population Health And Ecology and Abundance) and WildTech (novel technologies for surveillance of emerging and re-emerging infections of wildlife).

Finally there are weekly exchanges of news and events in several email discussion groups, such as the ‘EWDA wildlife health network’ mailing list. Among recent topics covered are the westward movement of African Swine Fever in wild boar in Europe, the increasing range of Echinococcus multilocularis in Europe, efforts to prevent the use of diclofenac in Europe and hoof disease in wild ungulates.

There is no shortage of challenging wildlife disease issues, and we look forward to many exciting discussions with our colleagues both within Europe and beyond in the coming year.

Call for Nominations for the 2015 WDA Council Election

The WDA Nominations Committee is seeking nominees for President, Vice-president and two Council Members-At-Large.

The President and Vice-president are 2-year-terms and Council Members-At-Large are 3 year-terms. Newly elected members of Council assume office at the end of the next WDA annual conference following the election. The 2015 WDA Conference will be held in Australia.

Ideally Officers and Council Members have a good understanding of the Association through their previous volunteer contributions. While experience gives Officers and Council Members valuable perspectives that they can bring to the Council, less experienced members have also been nominated and elected and have brought new and different ideas to Council. The nominees have to be members of WDA.

If you have suggestions for WDA members as nominees for these positions, please submit your suggestions for consideration by the nominations committee to, Dolores Gavier-
Widen (dolores@sva.se) by November 15, 2014 and include the following:

- Name of possible candidate
- Name of sponsoring member
- Name of second sponsoring member
- Degrees earned; place and date
- Former professional positions held; place and date
- Present Position; title and location
- Member of WDA since...
- Previous WDA activities
- Affiliations with relevant professional and scientific societies
- Interests associated with the mission of the WDA

Additionally, please have the nominee submit a personal agenda statement with an outline of personal goals for the WDA if elected (Limited to 100 words or less).

**Nordic Section Report**

1. An epidemic of eye infection in the Norwegian muskox (Ovibos moschatus) population

   Kjell Handeland and Knut Madslien, Norwegian Veterinary Institute, Oslo, Norway

   In early September 2014, signs of eye infection were detected in the Norwegian muskox (Ovibos moschatus) population living on the high mountain plateau of Dovre in South Norway. From a total of four flocks inspected, 35 out of 37 animals had a circular brim of solidified pus around their eyes (see figure). After approval from the Norwegian Environmental Agency, one injured ox and two other animals were shot, slaughtered and sampled.

   Gross examination revealed acute conjunctivitis in one of the animals, whereas no gross lesions could be detected in the remaining, presumably representing the healed stage of infection. Microbiological and pathological examinations are being carried out to try to illuminate the cause of this eye disease in muskox.

2. Locally increased mortality of harbour seals (Phoca vitulina) in the Danish Limfjord

   Trine H. Jensen, Jesper S. Krog, Charlotte K. Hjulsager; Lars E. Larsen; Mariann Chriél; Elisabeth Holm; Karl Pedersen; Mette Sif Hansen

   At the end of August 2014 an aerial seal counting was done by Aarhus University (Galatius, A) and increased mortality was observed on a small island Ejerslev Røn (56° 56'N 0° 87'Ø) and a sand bank Blinderøn about 4 km south-east of Ejerslev Røn. Both islands/sandbanks are protected nature reserves. The islands were inspected the following day by boat/walking. In total, 56 dead seals were found on Ejerslev Røn and Blinderøn. Four were shot due to severe respiratory symptoms and these four seals did not escape into the water when approached.

   All 60 seals except one with fishing net around the neck were dead within few days. One of the seals had a tag showing it had been through rehabilitation in the Netherlands.
Myxomatosis in a wild rabbit.
(Photo credit: Lennart Rosberg)

In addition to warm, sunny weather and an abundance of wild berries and mushrooms, the Swedish summer also brought its share of wildlife epizootics and irruptions.

3. Wildlife health highlights from Sweden
Aleksija Neimane

In addition to warm, sunny weather and an abundance of wild berries and mushrooms, the Swedish summer also brought its share of wildlife epizootics and irruptions.

Myxomatosis in wild rabbits: Periodically, myxomatosis and rabbit hemorrhagic disease virus (calicivirus) are detected in wild rabbits (Oryctolagus cuniculus) in Sweden. This summer, a dramatic increase in reports and photographs of rabbits suffering from myxomatosis were received from the southwest of the country. Examination of animals submitted to the National Veterinary Institute (SVA) confirmed the diagnosis.

Trichomoniasis in greenfinches: Outbreaks of Trichomonas gallinae in greenfinches (Carduelis chloris) and other passerines were first reported in Sweden in 2008 and this summer saw another epizootic throughout southern Sweden. In addition to greenfinches, numerous hawfinches (Coccothraustes coccothraustes) were also affected. The strain of T. gallinae is identical to that first detected in greenfinches in the United Kingdom in 2005. Migrating chaffinches (Fringilla coelebs) are hypothesized to have brought this protozoal parasite to Scandinavia. Since its detection in Sweden, the greenfinch population has declined by at least 20%.

Pasteurellosis in fallow deer: Similar to 2013, this summer has been warmer than usual and outbreaks of pasteurellosis have again been reported in both captive and free-ranging fallow deer (Dama dama). Characterization the strain of Pasteurella multocida is ongoing.

Salmonellosis in hedgehogs: Like pasteurellosis in fallow deer, conditions were also favourable for another salmonellosis outbreak in hedgehogs (Erinaceus europaeus). Salmonella Enteritidis was isolated from intestines of both young of the year and adult animals, but septic salmonellosis was confined to young animals in poor condition and presumably stressed.

It’s a wood lemming year: SVA has received numerous reports and samples of dead wood lemmings (Myopus schisticolor) from the middle and north of Sweden. Animals examined to date often have been young, in poor nutritional condition, and have had traumatic injuries (predation and blunt trauma). Preliminary results provide no evidence that tularemia or another underlying infectious disease is responsible for the deaths. Instead, Sweden appears to be experiencing a wood lemming irruption.
1. The 2nd Latin American Biennial Wildlife Disease Association Conference

Ezequiel Hidalgo, Buin Zoo

The 2nd Latin American Biennial Wildlife Disease Association conference will take place in Bogotá, Colombia, from Thursday 24 to Sunday 27 September, 2015, and will be hosted by the Wildlife Veterinarian Association of Colombia, and the Universidad de La Salle.

The second Latin America Section meeting promises to exceed the expectations of participants and is intended to reflect ongoing progress on understanding and addressing disease and conservation issues affecting wildlife health in Latin America. The conference program will include several keynote presentations by local and international experts, as well as contributed papers. Meeting languages will include Spanish, Portuguese, and English, without translation.

Bogotá is Colombia’s Capital city, with many attractions for visitors and ample opportunities to learn about the regions’ rich culture and enjoy first rate hospitality. So plan on spending some extra time exploring the city and other parts of this mega-diverse country. Please visit the conference website at www.wda.veterinariosvs.org. The local organizing team is working hard to make this a memorable experience for all. We will post updates when call for abstracts begins.

2. PhD Program in Conservation Medicine

Javier Millan, Universidad Andres Bello

The PhD Program in Conservation Medicine, Universidad Andrés Bello, invites applications for its next academic year starting in March, 2015. This multidisciplinary program is directed to graduates in areas such as Veterinary Sciences, Biology, Marine biology, Environmental Sciences, etc., interested in the study of the effect of human-induced global changes in ecosystem, wildlife, and human health.

The professors include local and international researchers in the fields of wildlife diseases and management, conservation biology, marine research, ecotoxicology and phylogeography, among other disciplines.

The application period is open from October 1st to November 28th. Interviews with the applicants will be carried out (via teleconference for foreign applicants) around the first two weeks of December.

The first year includes classes and seminars (see some examples below) and the development of a research project. Then, the student has to pass a comprehensive examination to become a PhD candidate. Then, the practical part of the PhD program begins. The whole PhD should take from 3 to 6 years.

The mandatory courses include the following subjects:

- Conservation Medicine in Practice
- Microbiology and Parasitology
- Biological Conservation
- Ecotoxicology
- Ecology of Infectious Diseases
- Research Methods in Conservation Medicine

Elective courses include topics such as invasive species, GIS, statistics, molecular epidemiology, and pathology of wildlife diseases.

There are scholarships (500,000 CLP per month, about 860 US$) available. The Universidad Andrés Bello also provides with competitive funds for research, meeting attendance, or for developing stays in foreign institutions.

Four PhD thesis have been successfully defended so far, with the following titles:

- Changes in trophic levels and accumulation of heavy metals in oceanic sharks in the south Pacific waters.
- Saving the last mouth brooding frogs: is chytridiomycosis driving Darwin’s frogs to extinction?
- Effect of the management of bentonic resources in parasite-host relationship and its implications for the conservation of three species of mollusks with economic
importance in Chile
Spatial epidemiology of rabies in bats.

The PhD program currently have more than 20 students from countries such as Chile, Uruguay, Ecuador, Guatemala or the USA. Please take into account that the majority of the classes are given in Spanish! Only some classes given by foreign visitor professors are in English.

For more information, please write to csoto@unab.cl or visit http://www.postgradounab.cl/programa/doctorado-en-medicina-de-la-conservacion/

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Winners of the Second Annual WDA Photo Contest
Lisa Shender, UC Davis

The 2nd Annual WDA Photo Contest was organized by the Student Activities Committee (SAC) and held at the annual WDA meeting in Tamaya, New Mexico. The SAC would like to acknowledge everyone who participated in this fundraising event and give our thanks for the donation of the many beautiful images to the silent auction. Through contest registration fees and photo sales the SAC earned more than $1,300, which will be used to support our WDA student chapters and other student programs. The contest winners are listed below and some of winning images can be seen in the accompanying photo collage.

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<thead>
<tr>
<th>Category</th>
<th>Prize</th>
<th>Winner</th>
<th>Photo Description</th>
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<tbody>
<tr>
<td>Wildlife</td>
<td>1st</td>
<td>Owen Slater</td>
<td>Black wolf with snow on muzzle</td>
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<td></td>
<td>2nd</td>
<td>Ian Barker</td>
<td>Black-tailed gull skimming water</td>
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<td></td>
<td>3rd</td>
<td>Tierra Smiley-Evans</td>
<td>Mountain gorilla</td>
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<td></td>
<td>runner-up</td>
<td>Ian Barker</td>
<td>Redhead ducks (image not shown)</td>
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<tr>
<td>Landscape</td>
<td>1st</td>
<td>Scott Bender</td>
<td>Monument Valley in winter</td>
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<td></td>
<td>2nd</td>
<td>Sandie Black</td>
<td>Morning in Pangboche, Nepal</td>
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<td></td>
<td>3rd</td>
<td>Jenna Webeck</td>
<td>“Beast of Burden” in Petra, Jordan</td>
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<td>Runner-up</td>
<td>Lisa Shender</td>
<td>Wetland lotus flower (not shown)</td>
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<td>Popular Vote</td>
<td>Popular Vote</td>
<td>Owen Slater</td>
<td>Hummingbird babies and parent</td>
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1. Chlamydiosis in rosy-faced lovebirds (Arizona)

In May 2014, a mortality event involving feral rosy-faced lovebirds (*Agapornis roseicollis*) in Phoenix and Scottsdale, Arizona was reported to the USGS National Wildlife Health Center (NWHC). To date, the mortality has involved at least 45 lovebirds from three locations. Four lovebirds were submitted to the NWHC for diagnostic evaluation. The cause of death was determined to be avian chlamydiosis caused by the bacterium *Chlamydophila psittaci*. A similar chlamydiosis mortality event in lovebirds in Mesa, Arizona was documented in August-September 2013.

The family Psittacidae, to which lovebirds belong, are common hosts for *C. psittaci*; however, the bacterium does not generally cause mortality in this group of birds. Lovebird mortality, and the occurrence of a disease with zoonotic potential on residential properties, prompted a two-week field investigation in August 2014 by NWHC in collaboration with Arizona Game and Fish Department, Arizona Department of Health Services, Maricopa County Department of Public Health, and the University of Georgia Infectious Disease Laboratory. The objective of the investigation was to examine the prevalence of *Chlamydophila psittaci* in the feral lovebird population in Maricopa County, the role other common backyard bird species have in the maintenance or spread of this bacterium, and the risk of infection by this bacterium to residential property owners that feed these species. A total of 193 birds were captured and sampled (conjunctiva/choana swab, cloacal swab, and serum) from residential back yards with bird feeders in Scottsdale and Mesa, Arizona within Maricopa County. Samples were primarily obtained from house sparrow (*Passer domesticus*; *n* = 62), rosy-faced lovebird (*n* = 50), house finch (*Haemorhous mexicanus*; *n* = 26), Inca dove (*Columbina inca*; *n* = 19), mourning dove
2. Common eider mortality (Iceland)

The USGS National Wildlife Health Center is collaborating with the University of Iceland’s Snaefellnes Research Centre, the Institute for Experimental Pathology at Keldur, and the West-Iceland Centre of Natural History to investigate a mortality event involving common eiders (Somateria mollissima) from a breeding location in Rif, Iceland. Mortality was first noted in May 2014 and continued into early July 2014, with approximately 50 eiders reported dead. No other species seemed affected at this location, although gulls were observed to be scavenging some of the carcasses. This site is managed for wild common eider breeding, with eider down nest lining collected by the property owner at the end of the breeding season. This location has approximately 500 eider nests in very close proximity to each other with both incubating females and attendant males present. To date, no cause of death has been identified and the investigation is continuing. In addition to the eider mortality, a black-legged kittiwake (Rissa tridactyla) mortality event was reported approximately 9 km away during the same time period; no kittiwake carcasses were available to examine.

3. Snake fungal disease

Over the last decade, reports of wild snakes from parts of the eastern United States that have severe, and often fatal, skin infections have increased. These infections, referred to as snake fungal disease (SFD), are consistently associated with the fungus Ophidiomyces ophiodiicola. Clinical signs are variable and range from thickened, crusty scales and nodules below the skin to skin ulcers and severe swelling of the head. The USGS National Wildlife Health Center (NWHC) has performed diagnostic evaluations on samples collected from over 70 snakes with clinical signs consistent SFD. NWHC is also participating in a multi-state collaborative project aimed at better understanding the disease and its potential impacts on snake populations. Although the fungus is widely distributed in captive animals, O. ophiodiicola has been identified in wild snakes only in the eastern United States. The NWHC is interested in reports of potential cases of SFD and in testing samples from other parts of the United States (i.e., west of the Mississippi River) to better determine the distribution of the fungus. Conservation agencies and natural resource managers in the eastern half of the U.S. are also encouraged to report suspected cases of SFD to the NWHC. More information about SFD, along with photographs of clinical signs, can be found on the NWHC website http://www.nwhc.usgs.gov/disease_information/other_diseases/snake_fungal_disease.jsp.

To report mortality in contiguous United States or Alaska, or to receive information about this report, please contact the USGS National Wildlife Health Center (NWHC), 6006 Schroeder Road, Madison, Wisconsin 53711, (608) 270-2480, NWHC-epi@usgs.gov.

To report mortality in Hawaii or Pacific Islands, contact NWHC - Honolulu Field Station, PO Box 50167, 300 Ala Moana Boulevard, Room 5-231, Honolulu, Hawaii 96850, (808) 792-9596, thierry_work@usgs.gov.


WDA Life Membership

David Jessup, Thierry Work, Marcy Uhart

The WDA has been trying to determine a way that older members, those around retirement age who may want to stay active in WDA, but who may be facing living on a fixed income, might do so. To accomplish this WDA President Thierry Work appointed an ad hoc committee that included two of WDA now retired members (both winners of the WDA Emeritus Award). The first question we had was what to name this potential new membership category. WDA already has an ‘Emeritus’ member category, one tied to the WDA Emeritus Award. Retired Member, Golden Years Member, and Senior Member were considered. But Life Member rose as the best description.

The trick to making this work financially was to find a way to provide not only the benefits of membership, but access to Journal of Wildlife Disease (JWD) in an affordable manner, recognizing that WDA membership rates are already low. And that they have not been raised in more than a dozen years, and have not been pegged at a level to offset free memberships for older members. We believe we have found a way to achieve this.

The online version of JWD is considerably less expensive to produce and to disseminate than the paper version. Mailing alone costs from $20 - 30/member/year. Paper and printing costs and mailing are also subject to market increases and inflationary pressures, which are less of a problem with online services.


A second trick was to determine what level of Life Member fees, which if properly invested, could provide sufficient income to support the cost of Life Member benefits. Based on the fees we pay Allen Marketing and Management for member services, the return rate we can expect on invested funds, as well as the experience of other organizations with similar costs and aspirations, the amount we needed to charge was determined to be approximately a one-time fee of $600. In July and August of this year, Council voted to establish a Life Member category that includes all the benefits of regular membership with online access to JWD for life for a one-time fee of $550, or four payments of $150 ($600) for members 65 years of age or older and who have been regular WDA members for at least 20 years.

Based on actuarial tables our members who are 65 can expect to live at least another 20 years. For WDA members who qualify on the basis of age and years of membership this means that if they pay the equivalent of 5 ½ to 6 years membership they will receive all the benefits of WDA membership for life. Hopefully that will be at least another 20 years.

One important assumption behind the Life Membership decision is the expectation that WDA will achieve its goals of endowment of JWD by 2020. If, or when that happens the costs of reviewing, composing, editing and producing JWD will be subsidized and membership fees (which likely will be somewhat reduced by Life Memberships) will not be as critical for the health of WDA.

It is also hoped that Life Members will form another group with common interests that support the friendships so important to WDA. Some of them may even want to sign up as mentors for younger members.

We see this new membership category as a ‘work in progress’ that we may decide to modify after a year or so as we see how it works out and we hope you agree this is another significant stride in our efforts to better serve our membership.