FROM THE CHAIR

Dear Bird Strike Committee USA (BSC-USA) Members,

The book is closed on another successful conference. Yet, even as we begin plans for the next conference, we know that safety never takes a break!

The 2018 North American Bird Strike Conference was held in Baltimore, Maryland August 21 to 23, 2018. The conference theme, “Migration Nation – When Birds Collide” covered an array of topics that ultimately revolved around risk reduction. We were privileged to have keynote speakers Janet Bucknall, USDA/APHIS/Wildlife Services Deputy Administrator; Eric Kershner, USFWS, Branch of Conservation, Permits, and Regulations, Branch Chief; and Winsome Lenfert, FAA, Associate Administrator of Airports.

Thank you to all who attended, presented, coordinated, and helped behind the scenes. Conference success was due directly to the exceptional support provided by the staff of Baltimore-Washington International Airport, USDA personnel, the conference committee led by John Ostrom and Jim Laughlin, and AAAE’s ongoing conference support—your contributions were invaluable. Former Chair Sarah Brammell stepped down for a well deserved break, and Nick Atwell accepted the responsibilities of being our new Vice-Chair. With leadership bookends like this all systems are go.

Committee News

The BSC USA Steering Committee welcomed several new members at the conference including Marcy Heacker from the Smithsonian and Lisa Harmon from Mead & Hunt, Inc. New Standing Committee Chairs include Lisa Harmon (Communications Committee) and Amy Anderson (Membership Committee).

The Steering Committee has evolved over recent years to represent the aviation industry. It provides unparalleled guidance to the FAA and serves as an invaluable clearing house for distributing information to the industry and the public. With respect to its mission and five-point objectives, the BSC USA truly serves as the national expert body on aviation wildlife hazards and as a liaison to the FAA, national/international BSCs, and other professional aviation and wildlife organizations.

Several Steering Committee positions remain open for nominations, and voting will occur prior to the Mid-winter meeting scheduled February 5-6, 2019, in Washington, D.C. Open positions, requirements, and the voting schedule are provided on page 2 of this newsletter. Please contact a current Executive Committee member or email us at birdstrike.usa@gmail.com if you are interested or would like more information about joining the Steering Committee.

BSC USA includes several important standing committees. The newsletter also provides updates on the current activities and goals of each standing committee for 2019. Please contact the committee chairs if you are interested in participating. Contact information for committee chairs is provided on page 2 of the newsletter.

Save the Date!

And finally, be sure to save the date for next year’s North American Bird Strike Conference, which will be held from August 13 to 15 in Halifax, Nova Scotia. The conference will be hosted by our colleagues from the Bird Strike Association of Canada. We’ll post updates as details become available.

Looking forward to seeing you in Nova Scotia!

John R Weller Chair, Bird Strike Committee USA
OPEN COMMITTEE POSITIONS
Nominations for vacant BSC USA Steering Committee positions are open!

Please contact an Executive Committee member or email us at birdstrike.usa@gmail.com if you are interested or would like more information. Submissions are being accepted for the following positions until January 11:

- FAA – ATC
- Aerospace Industry
- Airline
- General (two positions open)

Voting will be finalized January 18, 2019. Successful candidates will be notified soon after.

STANDING COMMITTEE UPDATES

BSC USA could not function without the help and contributions of its standing committees. If you are interested in participating in one of the committees, please contact the committee chair!

Communications Committee
By Lisa Harmon

The Communications Committee publishes newsletters, manages the BSC USA Facebook page, and offers newsworthy tweets and posts on Instagram. Working with the Membership Committee, our goal is to keep our membership informed of news, research, and emerging technologies associated with wildlife hazard management.

Our goal for 2019 is to increase outreach to our membership by providing greater coverage of committee activities, research and technology, and promoting the use of social media.

Education and Outreach Committee
By Mike Stephens

The Education and Outreach Committee is responsible for tracking and scheduling all educational and/or outreach events and activities involving BSC USA. The committee works with the Communication Committee to develop education and outreach materials as needed. BSC members are critical to events that require direct communication with the aviation industry and public, concerning the mitigation of wildlife hazards and risks associated with them. BSC USA Outreach focuses on aviation safety among airport operators, military and civilian government agencies.
involved in aviation or wildlife management, government, university and private research agencies, the air transport/general aviation industry, and the general public.

The committee’s primary goal in 2019 is to continue to identify and participate in opportunities that will promote BSC USA throughout the aviation industry. Events include major air shows and national and local aviation/wildlife conferences and meetings. The Committee will be present at the 2019 EAA Air Venture and other related events as directed by the Executive Committee.

Membership Committee
By Amy Anderson

The BSC USA Membership Committee maintains the current membership database, member contact information, and promotes membership and organizational growth. The committee initiates contact with new members and distributes information to members at annual conferences or through the BSC USA website and newsletters.

BSC currently includes approximately 400 members from a variety of aviation-related agencies and organizations. Goals for 2019 include upgrading the BSC USA membership database, creating a new system to communicate with new members, and increasing our membership.

### Bird Strike Committee Membership

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<thead>
<tr>
<th>Classification/ Representation</th>
<th>Number</th>
<th>Percentage of Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Airports</td>
<td>87</td>
<td>22%</td>
</tr>
<tr>
<td>DOD</td>
<td>91</td>
<td>23%</td>
</tr>
<tr>
<td>USDA WS</td>
<td>78</td>
<td>19%</td>
</tr>
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<tr>
<td>Airlines</td>
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<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>399</td>
<td>100%</td>
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Operations/Policies Committee
By Steve Osmek

The Operations/Policies Committee serves as BSC USA’s focal point for developing, promoting and implementing best policies and recommended practices guidelines for aviation wildlife management professionals. The FAA frequently provides the Standing Committee with early drafts of their Advisory Circulars (ACs) to obtain input before it sends out final drafts for public comment.

Recent accomplishments include:
- Providing the FAA with rationale for preserving the original intent of AC 150/5200-36 to ensure that many of the requirements for becoming a Qualified Airport Wildlife Biologist (QAWB) would be retained.
- Assisting airports in gaining clarity from the FAA on AC 15/5200-38, Protocol for Conducting Site Visits, Wildlife Hazard Assessments and Wildlife Hazard Management Plans, and easing the burden of airport operators who currently bear the bulk of the effort related to vetting biologist qualifications before hiring a biologist to conduct a WHA.

Throughout 2019, the Operations/Policies Committee will help to promote more formal ways of vetting QAWB credentials.

Another action item is to advocate for the inclusion of hazardous wildlife as part of risk assessment, rather than excluded from technologies now being developed for detecting drones and runway foreign object debris (FOD). Even AC 150/5220-24 Airport Foreign Object Debris (FOD) discusses wildlife as an ephemeral event and provides no mention of hazardous wildlife or bird strikes.

Research and Development Committee
By Craig Quick

The Research and Development (R&D) committee seeks to gain an understanding of emerging and ongoing research on airport wildlife. Topics include: bird strike avoidance (radar and other technologies); deterrence; and ongoing work to make engines and airframes as robust as possible when bird strikes occur.

Craig Quick, the R&D Chair, is involved in the SAE G-38 Simulants for Impact and Ingestion Testing Committee. The committee’s end goal is to create a simulant that could be used in place of real birds during the testing of aircraft body structures and engines. An artificial simulant is desirable because it provides a more consistent test article and eliminates issues associated with biological cleanliness. The committee is currently in the early stages – stand by for more to come!
SMITHSONIAN CHANNEL TO PRESENT “BIRD VS. PLANE”
By Carla Dove

The Smithsonian Channel will present “Bird vs. Plane: Miracle on the Hudson” to tell the story of aviation and wildlife conflicts and to commemorate the 10th anniversary of the “Miracle on the Hudson.” The program is scheduled to air on the Smithsonian Channel at the following times: January 15, 2019 at 9:00 pm and January 16, 2019 at 12:00 am and 12:00 pm.

The one-hour documentary weaves a story of current bird strike issues through the investigation of the Miracle on the Hudson. The documentary opens with historical bird strike footage and evolves through time to document the challenges that biologists, managers, engineers, and airport authorities face regularly. The project addresses military and commercial aviation, the practical and scientific and management applications to airfields, and underscores the need for ongoing study. BSC USA members will see some familiar faces, as “Bird vs. Plane” includes interviews with several members of BSC-USA and highlights wildlife management programs in place at several airports. The film was produced by the Smithsonian Channel and supported by the many members of the Bird Strike Committee USA.

For more information, go to: https://www.smithsonianchannel.com/shows/bird-vs-plane-miracle-on-the-hudson/0/3467432

Winners of the 2018 Conference Photo and Poster Contests

Annual Conference Poster Contest Winner
Cynthia Mehrlich

Annual Conference Photo Contest Winner
Troy Levanen
FORTHCOMING REPORT: WILDLIFE STRIKES TO CIVIL AIRCRAFT IN THE UNITED STATES, 1990-2017

The National Wildlife Strike Database for civil aviation reached a milestone in 2018 when the total number of strikes reported since the database’s inception in 1990 exceeded 200,000. A detailed analysis of the 197,833 strikes for the period from 1990 through 2017 is scheduled for release by the Federal Aviation Administration in December 2018. The report will be available at https://www.faa.gov/airports/airport_safety/wildlife/.

A record 14,496 strikes were reported in 2017, representing a 7% increase compared to the 13,427 strikes reported in 2016. In 2017, birds were involved in 95% of the reported strikes; terrestrial mammals, bats, and reptiles comprised the remaining 5%.

A major reason for the increase in reported strikes is that airports, pilots, and commercial aviation in general are doing a better job of documenting the wildlife struck, many of which are small species that rarely cause damage. This premise is supported by the fact that the mean mass (body weight) of birds reported as struck has declined 60% from 760 grams in 2000 to 300 grams in 2017. The number of reported damaging strikes in the USA actually has declined since 2000. The decline in damaging strikes has been most pronounced for commercial aircraft in the airport environment (at <1,500 feet above ground level [AGL]).

The new strike report contains 24 tables and 16 graphs that summarize trends and patterns for many aspects of wildlife strikes with civil aircraft. In addition, the report documents the increase in populations of large-bird species, such as Canada geese and sandhill cranes, that are hazardous to aircraft.

Look for the report on the FAA website and keep up the good work of reporting. A problem that is not well defined cannot be properly managed. Every documented strike adds to our knowledge base and contributes to safer skies for humans and birds!

2018 Conference Highlights
Sarah Brammell passed the gavel for Chair of BSC USA to John Weller during the 2018 conference.

Dana Green and Nick Atwell of PDX. Nick joined the Executive committee this year and serves as Vice Chair.
LATEST FROM THE LAB
Revisiting “Snarge” Failures to Improve DNA Bird Strike Identifications
By Marcia Haecker

Each year thousands of small, unidentified remnants of bird strike are submitted to the Smithsonian’s Feather Identification Lab for DNA analysis. Nearly 15 percent of those samples do not contain viable DNA.

The Smithsonian’s Feather Identification Lab deals with a lot of “snarge” – those icky bird parts that are scraped off aircraft – and the snarge submitted to the lab comes in all shapes and sizes. Although the quickest way to conduct species identifications is through the use of whole feathers plucked (not cut) from all parts of a bird, whole feathers might not always be available. In addition, the lab staff understand that many field collectors have become much better at spotting evidence from a bird strike, and the amount of sample material has been reduced.

When feathers are unavailable, the lab undertakes DNA testing. While many snarge samples received at the Lab contain adequate amounts of fat, tissue, or blood for successful DNA barcoding during the first attempt at identification, lab technicians have noticed that some samples received recently lack sufficient material to obtain good quality DNA sequences. In the past, the initial DNA failures (about 15 percent) were immediately forwarded to the microscope lab for examination and a higher-level taxonomic identification (i.e., family or order of birds). Recently, however, we have been taking another look at the snarge failures by resampling many of the samples that did not provide a DNA sequences during the first attempt at identification. Multiple variables can cause DNA samples to fail, so resampling gives a fresh start—and our initial results are promising.

The Lab needs your help! to obtain a high-quality identification during the first pass: Please consider the following when submitting snarge to the Lab:

**More is better!** If a large amount of snarge and feathers can be obtained from the aircraft, provide us with more than a single wipe with a cotton tip. Use paper towels or alcohol wipes to gather as much material as possible. If the first attempt fails, we’ll have material for the next try.

**Always include feathers!** Feathers are more reliable than degraded tissue! The more evidence we have, the faster and cheaper the identification process will be. If the tissue is rotten, we can obtain DNA from feathers too.

**Always dry samples before shipment.** Wet, moldy, or degraded samples ruin DNA. Use alcohol wipes with a high percentage of ethanol. Dry, scabby material is the best!

**Give us a little more time!** Resampling and reprocessing failed samples takes more time and effort. Hang in there—we are trying to improve species level identification so that you can get beautiful results like “bay-breasted warbler” or “scarlet tanager” rather than “unidentified passerines!”

**Send samples ASAP.** The faster we get the sample, the less degraded it will be.

The Lab is working to improve its methods and provide you with better, high-quality identifications. Stay tuned for the results! In the meantime, keep in mind that your efforts are the first step in successful DNA identifications.
CONFERENCE UPDATE


One of the conference highlights was Monday’s early bird training session. Presented by Eric Kershner of USFWS, the training focused on the Migratory Bird Treaty Act, which celebrated its 100th anniversary this year. The attendees also had the opportunity to hear from Janet Bucknall, Deputy Administrator of USDA Wildlife Services, who gave the Keynote Address on Tuesday morning.

In addition to the educational and insightful presentations, Wednesday evening’s Quiz Bowl proved to be one of the more entertaining and social highlights. Thanks to Environmental Resource Solutions for sponsorship and to Richard Dolbeer and Carla Dove for their Quick Bowl design.

Based on the reviews we’ve received, it is apparent that a good time was had by all. For those of you who were unable to attend but wish to review the presentations, they are available from the AAAE website at:

https://www.aaae.org/AAAE/BirdStrike/Agenda/Presentations.aspx

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**Bird Strike Conference by the Numbers**

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<th>COUNTRIES REPRESENTED</th>
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<table>
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**Photo Contest Winners**

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<tr>
<td>1st</td>
<td>Troy Levanen</td>
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<tr>
<td>2nd</td>
<td>Prabin Joshi</td>
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</tr>
<tr>
<td>3rd</td>
<td>Prabin Joshi</td>
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<tr>
<td>4th</td>
<td>Nikos Fokas</td>
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**Poster Contest Winners**

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<tbody>
<tr>
<td>1st</td>
<td>Cynthia Mehrlich</td>
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</tr>
<tr>
<td>2nd</td>
<td>Cynthia Mehrlich</td>
<td>$150</td>
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<tr>
<td>3rd</td>
<td>Joseph Theige</td>
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<tr>
<td>4th</td>
<td>Taylor Houston</td>
<td>$25</td>
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Stay Tuned for Next Year!

The Annual Conference Committee is hard at work with our Canadian counterparts as we work together to plan the 2019 Bird Strike North America Conference. The Conference will be hosted by Bird Strike Committee Canada and held in Halifax, Nova Scotia from August 12 to 15, 2019.
2018 Conference Highlights

Exhibitor Arquimea Airport Services demonstrated the use of a Robotic Falcon to disperse wildlife.

Amy Reed, former Membership Chair, Carla Dove, Steering Committee, and Cathy Boyles, former Communications Chair, receive recognition for jobs well done!