Repro-Endo SAG’s Membership

The newly invigorated Association of Zoos and Aquariums (AZA) Reproduction Scientific Advisory Group® (SAG) has merged with the Endocrinology SAG! The goals of both SAGs centered around supporting zoo and aquarium population sustainability by focusing on reproduction, health and welfare and joining forces allows for more efficient and productive actions.

The Repro-Endo SAG applies science-based technology to facilitate the long-term sustainability of AZA’s cooperatively managed Animal Program populations by identifying, prioritizing, addressing specific reproductive and health challenges and optimizing health and animal welfare to promote thriving populations.

Mission

To improve our understanding and the success of wildlife reproduction, welfare and health both in situ and ex situ

Goals

1. Expand, engage and respond to the AZA community
2. Identify current reproductive, welfare and health challenges and/or assisted reproductive and endocrine technologies in use or being researched for wildlife management and population sustainability
3. Determine priorities for future reproduction, welfare and health research, and facilitate development of research projects
4. Form collaborations within the AZA community and other reproductive and endocrine scientists who’s expertise can be used to resolve issues
5. Provide regular communication
6. Serve as advisors to the AZA community

Who We Are

The Repro-Endo SAG liaises with AZA’s Animal Welfare, Animal Health, and Wildlife Conservation and Management Committees and is managed under the purview of the AZA Research and Technology Committee.

We have 27 SAG members including 11 Steering Committee members:
1. Rachel Santymire, Chair, Lincoln Park Zoo
2. Mandi Schook, Vice Chair, Disney’s Animal Kingdom
3. Kari Morfeld, Secretary, Omaha’s Henry Doorly Zoo & Aquarium
4. Copper Atkin-Palmer, Brookfield Zoo
5. Nancy Hawkes, Woodland Park Zoo
6. Buddha Pukazhenth, Smithsonian’s National Zoo
7. Cat Wheaton, Disney’s Animal Kingdom
8. Cheri Asa, Saint Louis Zoo
9. Linda Penfold, South-eastern Zoo Alliance Research Center
10. Jason Herrick, National Fertility Research
11. Grace Fuller, Detroit Zoological Society

Repro-Endo SAG’s Activities

1. Revitalized the SAG by increasing SAG membership
2. Reviewed AZA CGF and other grants
3. Worked with the new AZA Reproduction Management Center (RMC) to determine our roles in supporting AZA population sustainability
4. Worked with the AZA Population Management Center (PMC) to determine how to identify and assist Species Survival Plans® (SSPs) with reproductive issues
5. Reached out to Taxon Advisory Groups® (TAGs) to determine R-E Advisor needs (Table 1)
6. Utilized AZA’s Sustainability database to determine the current technology and the AZA community’s needs (Table 2).

Tools and Resources

• Infertility Decision Tree developed by AZA RMC (Fig. 2)
• AZA Endocrine service labs
• Training opportunities (such as Felid TAG and Avian TAG workshops)
• Write and review reproduction and other chapters of Animal Care manuals
• Answer reproduction and stress related inquiries
• Assist with evaluating grant methodology for endorsement by the Repro-Endo SAG

How Repro-Endo SAG Can Help Your SSP

• Connect your TAGs and SSPs to R-E SAG advisors
• Be your liaison to the RMC
• Help find the tools your population needs to assess long-term health, welfare and sustainability
• Work with animal managers for individual animal health welfare and reproductive issues
• Review grants and provide endorsement when appropriate

Acknowledgments

We would like to thank our members, the AZA staff and the AZA RMC for developing tools and services related to reproduction and endocrinology.

Table 1. Results from Repro-Endo SAG officers reaching out to TAG Chairs about Repro-Endo Advisor needs

<table>
<thead>
<tr>
<th>TAGs with Repro-Endo Advisors</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAGs without Repro-Endo Advisors</td>
<td>13</td>
</tr>
<tr>
<td>TAGs contacted by R-E SAG this summer</td>
<td>33</td>
</tr>
<tr>
<td>TAGs with R-E Advisors after contact</td>
<td>7*</td>
</tr>
</tbody>
</table>

*Contacted Avian SAG (representing 14 TAGs)

Table 2. Results from AZA SSP Sustainability Database using suggested search terms. Note, SSPs may be represented in multiple searches.

<table>
<thead>
<tr>
<th>AZA SSP Sustainability Report Search Terms</th>
<th>SSPs (n=485) with needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AI</td>
<td>54</td>
</tr>
<tr>
<td>Animal Welfare</td>
<td>36</td>
</tr>
<tr>
<td>ART</td>
<td>86</td>
</tr>
<tr>
<td>Artificial insemination</td>
<td>65</td>
</tr>
<tr>
<td>Assisted reproductive technology</td>
<td>74</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>28</td>
</tr>
<tr>
<td>Health</td>
<td>100</td>
</tr>
<tr>
<td>Physiology</td>
<td>15</td>
</tr>
<tr>
<td>Reproductive biology</td>
<td>89</td>
</tr>
<tr>
<td>Semen collection</td>
<td>17</td>
</tr>
<tr>
<td>Semen cryopreservation</td>
<td>24</td>
</tr>
</tbody>
</table>

Figure 1. Timeline of Repro-Endo SAG activities

<table>
<thead>
<tr>
<th>Fall 2014</th>
<th>Spring 2015 Elected Officers</th>
<th>Spring 2016 Merged Repro and Endo SAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter 2015</td>
<td>Steering Committee Established</td>
<td>Fall 2015 Met at AZA</td>
</tr>
</tbody>
</table>

Figure 2. Infertility Decision Tree Tool developed by the AZA RMC