



# JOINT MEETING OF ICHTHYOLOGISTS AND HERPETOLOGISTS

JULY 12-16, 2017

AUSTIN, TX - RENAISSANCE AUSTIN HOTEL



## PROGRAM BOOK

This program book is current as of June 26, 2017. Any cancellations or changes received after this date will be posted online, outside of the session rooms and on the mobile app.



# Organizing Societies

## **American Elasmobranch Society 33rd Annual Meeting**



President: Dean Grubbs  
Treasurer: Cathy Walsh  
Secretary: Jennifer Wyffels  
Editor and Webmaster: David Shiffman  
Immediate Past President: Chris Lowe

## **American Society of Ichthyologists and Herpetologists 97th Annual Meeting**



President: Carole Baldwin  
President Elect: Brian Crother  
Past President: Maureen A. Donnelly  
Prior Past President: Larry G. Allen  
Treasurer: F. Douglas Martin  
Secretary: Prosanta Chakrabarty  
Editor: Christopher Beachy

## **Herpetologists' League 75th Annual Meeting**



President: David M. Green  
Immediate Past President: James Spotila  
Vice-President: David Sever  
Treasurer: Laurie Mauger  
Secretary: Renata Platenburg  
Publications Secretary: Ken Cabarle  
Communications Secretary: Wendy Palin  
*Herpetologica* Editor: Stephen Mullin  
*Herpetological Monographs* Editor: Michael Harvey

## **Society for the Study of Amphibians and Reptiles 60th Annual Meeting**



President: Richard Shine  
President-Elect: Marty Crump  
Immediate Past-President: Aaron Bauer  
Secretary: Marion R. Preest  
Treasurer: Kim Lovich  
Publications Secretary: Cari-Ann Hickerson

**Thank you to our generous sponsor**



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## We would like to thank the following:

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### Local Hosts

David Hillis, University of Texas at Austin, LHC Chair  
Dean Hendrickson, University of Texas at Austin  
Becca Tarvin, University of Texas at Austin  
Anne Chambers, University of Texas at Austin  
Christopher Peterson, University of Texas at Austin

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### Volunteers

We wish to thank the following volunteers who have helped make the Joint Meeting of Ichthyologists and Herpetologists run smoothly. Please look for those with a Volunteer or Host ribbon and thank them for their time.

Courtney Check, College of William and Mary  
Corinne Burns, University of Texas at Austin  
Diego Elias, Louisiana State University  
Bryan Keller, Florida State University  
Bill Ludt, Louisiana State University  
Kady Lyons, University Calgary  
Kelsey Marchand, University Regina  
Bianca Prohaska, Florida State University  
Matt Scanlon, Georgia Southern University  
Lauren Simonitis, Texas A&M Galveston  
Rachel Skubel, University of Miami  
AJ Turner, Louisiana State University

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### JMIH Meeting Management and Planning Committee

Henry R. Mushinsky, Chair, University of South Florida  
Charles "Chip" Cotton, Florida State University Coastal and Marine Lab  
Marlis Douglas, University of Arkansas  
David Green, McGill University  
Kyle Piller, Southeastern Louisiana  
Dustin Siegel, Southeast Missouri State University  
Marty Crump, Program Officer

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### Partners

Alliance Audio Visual  
ConferenceDirect  
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Renaissance Austin Hotel

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### ASIH Book Raffle Donors

Eagle Mountain  
Missouri Dept. of Conservation  
Dr. Ted Pietsch, Princeton University  
CRC Press/Taylor & Francis Group  
Sinauer Associates, Inc.  
Harvard University Press  
University of Utah Press  
John Hopkins Press  
Society for the Study of Amphibians and Reptiles  
Oxford University Press  
University Press Mississippi  
And to those that donated onsite

# guidebook

## Joint Meeting for Ichthyologists and Herpetologists has gone **MOBILE!**

We're excited to announce we have a brand new mobile guide for you to use on Guidebook! Get the guide to access the most up-to-date information about our event, including schedules, maps, and much more.

Get our guide here: <https://guidebook.com/g/jmih>

Android and iOS users:

1. Tap the "Download" button to download the free Guidebook app
2. Open Guidebook and you can find our "2017 Joint Meeting of Ichthyologists & Herpetologists" guide

See you there!

— 2017 Joint Meeting of Ichthyologists & Herpetologists Team



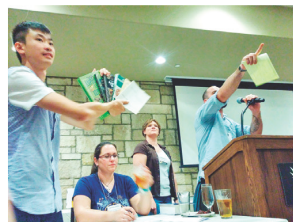
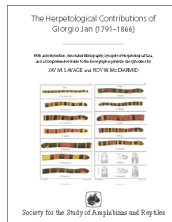
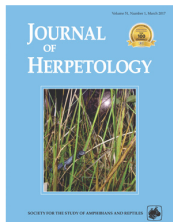


# SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES

*Publisher of Journal of Herpetology, Herpetological Review, Herpetological Circulars, Catalogue of American Amphibians and Reptiles, and three series of books, Facsimile Reprints in Herpetology, Contributions to Herpetology, and Herpetological Conservation*

## S.S.A.R. WELCOMES YOU TO AUSTIN!

SSAR JOINS ITS SISTER SOCIETIES IN THE JOINT MEETING OF ICHTHYOLOGISTS AND HERPETOLOGISTS IN WELCOMING you to Austin. SSAR offers all participants a whimsical horned lizard poster to set the mood for the Austin meeting. SSAR is screening two audio-visual shows (*Amphibians of the Appalachians* and *Herpetologists Past and Present*; see other side) that have been updated since their premiers at the 2015 SSAR meeting at the University of Kansas. Other SSAR events include the Silent Auction to support student travel awards, the popular “President’s Travelogue,” this year given by Mitzy Pepper, who will talk about her adventures during fieldwork in the Australian outback, and two events co-sponsored with The Herpetologists’ League: the Student Reception and the always-exciting Live Auction. SSAR is also a co-sponsor, along with HL and ASIH, of a symposium—*The Science, Management, and Policy of Amphibian Conservation: Extending the Legacy of Ray Semlitsch*. We hope you enjoy the meeting.



**THE VALUE OF MEMBERSHIP IN A PROFESSIONAL SOCIETY:** Just as SSAR members play an active role in the Joint Meeting, we believe very strongly in playing an active role in the societies to which we belong. We strongly encourage our students to do the same. We encourage even beginning students to become members of at least one professional society. Become invested in it! Go to the business meeting, volunteer to review manuscripts, serve on committees, or ask officers how otherwise to get involved. This experience is an important part of becoming a professional in our field. Student memberships are relatively inexpensive (the cost of a nice meal out or a night at the bar!), especially when one considers the many personal and professional benefits.

There also is the intangible benefit of being part of a society of colleagues who are bound together by shared research, conservation, and educational goals and by their interest in a particular group of animals. Membership is a way of sharing in the proud tradition of herpetology as a discipline and of formally associating yourself with this field. It is critical for the continued health of SSAR and its many contributions to our field that we retain and grow the membership. This is not a purely financial concern. As a society with unpaid officers and editors, our ability to provide the benefits enjoyed by our members depends on volunteers who will step up and contribute. Student members are the officers, editors, and committee chairs of the future; they ensure the continuity of the society and of the products and services that SSAR provides to the herpetological community.

**BECOMING A MEMBER OF SSAR:** SSAR is an international society of herpetologists from more than 65 countries that is based in the USA. Membership dues are the same worldwide (currently, \$95 regular and \$45 for students). All members receive two quarterly, full-color journals (the award-winning *Journal of Herpetology* and the world’s most popular news-bulletin, *Herpetological Review*) and receive discounts on all other publications and meeting registrations. Members can also publish in both journals without page charges and vote in SSAR elections. Full details are at: [www.ssarherps.org](http://www.ssarherps.org) (click on “Join SSAR”).

**SSAR OFFICERS AND EDITORS:** SSAR officers and editors work for you—the members and future members of the society. On the other side of this letter, we have included their names and photographs to encourage dialogue during the meeting. Please share your concerns, suggestions, and thanks with these volunteers as you see them during the meeting.



Aaron M. Bauer, *Past-president*  
Villanova University (USA)

**WE INVITE YOU ...**



Rick Shine, *President*  
University of Sydney (Australia)

**...TO JOIN S.S.A.R.!**



Marty Crump, *President-elect*  
Utah State University (USA)

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A list of 2017 JMIH participants will be available on the archives page of the website beginning  
14 August 2017.

**<http://conferences.k-state.edu/JMIH-Austin-2017/about/past-meeting-archives/>**



# General Meeting Information

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## Meeting Room Information

During presentations, please turn off all cell phones or set them to vibrate.

Carl Gans Plenary Session – Grand Ballroom (Salon A & Salon B)

Beverage Breaks

Thursday, Friday, & Saturday, 7 a.m. – Atrium Level, Arbor and Grand Ballroom Foyer

Thursday, Friday, & Saturday, mid-morning – Rio Grande Exhibit Hall

Thursday, Friday, & Saturday afternoon – Rio Grande Exhibit Hall

Sunday – Rio Grande Exhibit Hall

Exhibits – Rio Grande Exhibit Hall, Lower Level

Poster Presentations

Friday, & Saturday, 4-6 p.m. – Rio Grande Exhibit Hall

Oral Presentations

Salon/Ballroom A, Salon/Ballroom B, Wedgwood Ballroom,  
Glass Oaks Ballroom, San Antonio, Sabine, Pecos, Trinity

Presentation Submission Room – Guadalupe

Speaker Prep Rooms – Blanco, Canadian, Colorado

AES Store – Concho

HL/SSAR Live Auction Viewing Room – Frio

SSAR Silent Auction – Frio

ASIH Graduate Student Book Raffle – Rio Grande Exhibit Hall, Lower Level

HL/SSAR Live Auction – Salon/Ballroom A

HL/SSAR Student Social – Arbor

SSAR President's Travelogue – Salon/Ballroom B

SSAR AV Shows – Salon/Ballroom A

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## Internet Access

Tier 1 Internet access will be provided to all JMIH attendees in the guest and meeting rooms of the Renaissance Austin Hotel.

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## Business Center

The Renaissance Business Center is located inside the lobby and is accessible 24-hours per day with your Renaissance room key.

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## Messages and Job Announcements

Message boards are located near registration in the Plaza Foyer. Participants may post messages for friends and colleagues. The registration staff will also post telephone and other messages on these boards. Urgent messages should be directed to the Renaissance at 512-343-2626 during meeting hours. These will be relayed to meeting coordinators and posted for participants as soon as possible.

Job announcements or information about employment opportunities may be posted on the message boards as well.

# General Meeting Information

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## Food and Beverage

Morning and afternoon beverage breaks will be served in the following locations:  
Thursday, Friday, and Saturday 7 a.m. - on the Atrium level in the Arbor and the Grand Ballroom Foyer.

Thursday, Friday, and Saturday midmorning and afternoon Sunday a.m. and p.m. - in the Rio Grande Exhibit Hall, Lower Level.

A cash bar will be available during poster sessions, 4-6 p.m., Friday, 14 July and Saturday, 15 July.

Lunch is on your own each day. A variety of restaurants are available within walking distance of the Renaissance in the Arboretum area. Visit the JMIH website: <http://conferences.k-state.edu/JMIH-Austin-2017/lodging-travel/attractions/> for ideas.

Dinner is also on your own each day, with the exception of the opening reception at The Oasis and any social even tickets you may have purchased. We will have limited bus transportation to downtown Austin on Friday and Saturday evening from 6:00 - 11:00 p.m. Visit the JMIH website: <http://conferences.k-state.edu/JMIH-Austin-2017/lodging-travel/attractions/> for ideas.

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## Registration Desk

The JMIH Registration Desk, located in the Plaza Registration Booths on the Lower level is staffed to check in attendees and exhibitors and answer any questions you might have regarding the meeting.

### Hours of Operation:

Wednesday, 12 July - Saturday, 15 July 7 a.m. - 5 p.m.

Sunday, 16 July 7 a.m. - 3 p.m.

3-5 p.m. - open for information only

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## Event Tickets

A variety of tickets may be included in your name badge. The number of tickets you have is determined by your personal registration choices.

### ***Reception tickets***

For full conference registrants, there are two drink tickets good for beer, wine, and soda at the Opening reception at The Oasis.

Any additional tickets purchased will receive an entry ticket into the general reception, along with two drink tickets.

Additional food and beverage tickets (by registration only) may include:

AES Banquet for Sunday, 16 July at the Glass Oaks Ballroom in the Renaissance Austin Hotel.

# Presentation Information

## Oral Presenters

Oral and symposia presenters should submit their presentations to an Alliance AV representative by 5 p.m. the day preceding their presentation. Alliance AV will be set up in Guadalupe located on the lobby/atrium level of the Renaissance to receive presentations at the following times:

Wednesday, 12 July - 1-5 p.m.  
Thursday, 13 July - Saturday, 15 July -  
7:30 a.m. - 5 p.m.

**Use the following format when naming your files:**

military time – paper# – Last Name

Examples: 915 – 445 – Todd 1345 – 766 –  
Smith

The technical coordinators available will immediately load and review presentations as they are submitted. A presenter's memory stick or CD will be returned when the presentation has been successfully loaded.

An Alliance AV representative will be present in each meeting room to monitor equipment and presentations.

Three *Speaker Prep Rooms* are Available: Blanco, Canadian, and Colorado

These rooms are located on the lobby/atrium level and will have computers and projectors available for speakers to practice their presentations. A sign-up sheet is posted outside each room.

Speaker prep rooms are available:

Wednesday, 12 July  
1–10 p.m.

Thursday, 13 July –Saturday, 15 July  
7:30 a.m.—10 p.m.

Sunday, 16 July  
7:30 a.m.—5 p.m.

Session moderators have been designated to facilitate each session. The names of moderators are noted in the session schedule. Moderators should have received their packet of instructions when checking in at the registration desk.

## Poster Presenters

Poster session dates and times are as follows:

Friday, 14 July 4-6 p.m.  
Saturday, 15 July 4-6 p.m.

At least one author must be present during the entire poster session time period. Please remove your poster immediately following the poster session. Posters not claimed by 5:00 p.m. on Sunday, 16 July will be discarded.

### *Poster Board Assignments*

A listing of poster sessions is current as of the positing of this program book (June 23). All poster boards are numbered. The title and author will be posted on each board as well. Because some posters are part of competitions, it is important that each presenter place their poster in the correct location. **Presenters can place their poster on their assigned board anytime between 9 a.m. and 12 p.m. on the day they are presenting. Presenters are asked to have their poster set by 12 p.m. in order that attendees may view the posters prior to the scheduled session time.**

## Lightning Talks

Lightning talks (five minutes in length, 10 slides maximum) provide a good forum for presenting preliminary research or for putting out a call for data, feedback, or collaboration.

# Special Announcements from Societies

## Call for 2019 JMIH Symposia

The JMIH Meeting and Planning Committee invites well-conceived symposia proposals for 2019. See societal websites for details and deadlines or contact any of the following:

AES –Toby-Daly Engel at [tdalyengel@uwf.edu](mailto:tdalyengel@uwf.edu)  
ASIH – Henry Mushinsky at [mushinsk@usf.edu](mailto:mushinsk@usf.edu)  
HL – Mary White at [mwhite@selu.edu](mailto:mwhite@selu.edu)  
SSAR – Richard Durtsche at [durtsche@nku.edu](mailto:durtsche@nku.edu)

## ASIH General Endowment Fund Information

ASIH thanks all of the members who have made contributions to the General Endowment Fund. Currently your gifts are used to support ASIH symposia each year at the Joint Meeting of Ichthyologists and Herpetologists.

ASIH also thanks meeting attendees who participate in the student-run book raffle, which directly supports student travel to the JMIH. In recognition that today's student members are the future of ASIH and that attendance at the JMIH encourages society involvement, ASIH matches dollar for dollar funds raised at the raffle. Please help ASIH promote our students. Be generous and make this year's raffle a great success.

## SSAR President's Travelogue

**Wednesday, 12 July 7:00-8:00 p.m.**  
**Salon/Ballroom B, Lobby/Atrium Level**

Mitzy Pepper, Australian National University, "Crikey! A Lizard-Loving Sheila's Adventure through Outback Aussie Biodiversity."

## AES Store

**Thursday, 13 July – Sunday, 16 July**  
**Concho, Lobby/Atrium Level**

The AES Store is open! A variety of elasmobranch-related goods, including pens, water bottles, and shirts are available. Proceeds go to support AES student funding.

Thursday, 13 July from 10 a.m. - 5:30 p.m.  
Friday, 14 July from 8 a.m. - 4:30 p.m.  
Saturday, 15 July from 8 a.m. - 5 p.m.  
Sunday, 16 July from 8 a.m. - 3 p.m.

# Special Announcements from Societies

## **SSAR/HL Live Auction Viewing Room**

**Thursday, 13 July – Sunday, 16 July**

**Frio, Lobby/Atrium Level**

All items for the HL/SSAR Live Auction will be available for viewing. Items can be viewed at the following days and times:

Wednesday, 12, July—Drop off items.

Thursday, 13 July and Friday, 14 July from 8:00 a.m. - 5:00 p.m.

Saturday, 15 July from Noon - 5:00 p.m.

Sunday, 16 July from 8:00 a.m. – 1:00 p.m.

## **SSAR Silent Auction**

**Thursday, 13 July – Sunday, 16 July**

**Frio, Lobby/Atrium Level**

All items for the HL/SSAR Live Auction will be available for viewing. Items can be viewed at the following days and times:

Wednesday, 12, July—Drop off items.

Thursday, 13 July from Noon - 5:00 p.m.

Friday, 14 July and Saturday, 15 July from 8:00 a.m. - 5:00 p.m.

Sunday, 16 July from 8:00 a.m. – Noon

## **HL/SSAR Live Auction**

**Sunday, 16 July 9:00 p.m. – midnight**

**Salon/Ballroom A, Lobby/Atrium Level**

All JMIH participants are welcome to attend and bid on donated items. A cash bar will be available.

# Social Events

## Wednesday, 12 July

**Mentorship Program Meet and Greet – Brazos**  
6:00-7:00 p.m.

**Open Mic Night – Glass Oaks Ballroom of the Renaissance Austin Hotel**  
8:00 p.m.— 11:00 p.m.

Join your colleagues on Wednesday evening in the Glass Oaks Ballroom for informal networking between students, post-docs, and new and seasoned professionals. Everyone is free and encouraged to bring your own instruments, amplifiers, singing voices, etc.! There will be a cash bar and entertainment provided by...YOU! Take this opportunity to show off your talents!

## Thursday, 13 July

**HL/SSAR Student Social – Arbor**  
5:00-6:00 p.m.

This is a special reception for current student members of HL and SSAR, along with HL and SSAR Board members and several invited senior herpetologists. Finger food and drink tickets will be provided.

**JMIH Opening Reception – The Oasis**  
6:00-10:00 p.m.

Located on beautiful Lake Travis, The Oasis is known as the Sunset Capital of Texas. This four story dream facility has a different theme and ambience in every room, as well as a spacious outdoor deck where we will be able to take in the stunning views of the sunset on Lake Travis.

The reception menu will include tortilla chips with salsa and chile con queso; and a build-your-own fajita bar with marinate skirt steak, grilled chicken breast, Shiner Bock braised pork, and caramelized peppers and onions served with flour tortillas, Spanish rice and charro beans, pico de gallo, cheese, sour cream, lettuce, and guacamole; and two drink tickets good for beer, wine and soda.

Shuttle buses will be provided and will depart from the Renaissance Hotel Front Drive entrance starting at 5:30 p.m. and will run continuously. The shuttle buses will start departing from The Oasis starting at approximately 7:30 p.m. and will run continuously until 10:15 p.m. Participants will need to visibly display their JMIH name tags when boarding the bus in order to participate in the JMIH opening event.

**Entertainment: The Austin Lounge Lizards**

## Friday, 14 July

**PARC Networking and Fundraising Social – Wedgwood Ballroom**  
6:30 p.m.—7:30 p.m.

Please join Partners in Amphibian and Reptile Conservation (PARC) for a networking social! Learn about PARC, and help support PARC activities through our nonprofit partner, the Amphibian & Reptile Conservancy. Check the conference app for more details.

# Social Events

## Friday, 14 July

### **ELHS/LFC No Host Social: Shuttle Service to Downtown Austin – Buses will be at Hotel Front Entrance**

**One bus departs hotel at 6:30 p.m. & another at 7:30 p.m. *Pre-pay at registration booth (only \$20 per person, cheapest fare in town!)***

A list of pubs, restaurants, music and must-sees (Bat Bridge!) will be provided along with a suggested timeline and sites for aggregation of ELHS/LFC participants.

The ELHS/LFC has scheduled bus transportation to Austin City Center on Friday night, 7/14 with two departure times (6:30pm & 7:30pm) and several return times to the Renaissance Hotel later in the evening. Make sure it is the LFC Bus, there will be others also departing around those times. Check the sign on the bus dash. \*

*\*Participants will need to visibly display their JMIH name tags when boarding the bus in order to participate in the LFC no host event.*

**\*\*JMIH societies and Kansas State University are not liable if a participant fails to return to the final departing bus from downtown Austin.**

## Friday and Saturday (14 July—15 July)

### **JMIH Shuttle Service to Downtown Austin – Buses will be at Hotel Front Entrance 6:00 p.m.—1:00 a.m.**

Shuttle services will be offered for free to all JMIH participants from the Renaissance Austin Hotel to Downtown Austin (Trinity and Third) from 6:00-1:00 am. Make sure it is a JMIH Bus, there will be other buses also departing around those times. Check the sign on the bus dash.

To see a list of events that are taking place and things to do near this location, please visit: <https://6thStreet.com> or the lodging & travel section of JMIH website (<http://conferences.k-state.edu/JMIH-Austin-2017/lodging-travel/attractions/>)

*\*Participants will need to visibly display their JMIH name tags when boarding the bus in order to participate in the LFC no host event.*

**\*\*JMIH societies and Kansas State University are not liable if a participant fails to return to the final departing bus from downtown Austin.** Please see for a list of transportation options at Visit Austin ([https://www.austintexas.org/visit/plan-your-trip/transportation/.](https://www.austintexas.org/visit/plan-your-trip/transportation/))

## Saturday, 15 July

### **AES Student Social – Location TBD 7:30p.m.**

Join your fellow AES students for an informal social. The location will be announced at the meeting, or you can check the AES Store in Concho located on the lobby/atrium level of the Renaissance.

Contact: Johanna Imhoff

# Social Events

## Sunday, 16 July

### **AES Group Photo – at the AES Fundraiser Banquet, Glass Oaks Ballroom, Renaissance Hotel**

The traditional AES group photo will be taken on Sunday, 16 July during the AES Fundraiser Banquet.

### **ASIH No Host Sunday Shuttle Service to Downtown Austin (Trinity & Third)**

**6:00 p.m.—1:00 am**

Instead of having a formal Closing Event in Austin, ASIH has scheduled bus transportation to the Austin City Center on Sunday night, 7/16 from 6:00 pm – 1:00 am. Participants will be able to enjoy downtown Austin without the added cost of transportation!

Free continuous shuttle service, beginning at 6:00 p.m., between the Renaissance Austin Hotel & Downtown, will be provided. Return times begin at 7:30 pm. **The last bus returning to the hotel will leave the Austin Convention Center (Trinity and Third) at 1:00 AM.**

To see a list of events that are taking place and things to do at this location, please visit: [6th Street Austin](#)

*Participants will need to visibly display their JMIH name tag badges when boarding the bus in order to take advantage of this service provided by ASIH.*

**\*\*JMIH societies and Kansas State University are not liable if a participant fails to return to the final departing bus from downtown Austin.**

### **AES Fundraiser Banquet - Glass Oaks Ballroom, Renaissance Austin Hotel**

**6:00 p.m. – 12:30 a.m.**

Professionals (AES Member)= \$60; Students (AES Member)= \$40; Non-AES Mber/Accompanying Person/Guest=\$75.00

On Sunday, July 16 from 6:00 p.m. until 12:30 a.m., the American Elasmobranch Society Banquet will be held in the Glass Oaks Ballroom of the Renaissance Austin Hotel. The social hour will start at 6:00 p.m., with dinner served at 7:00 p.m. Wine will be served with dinner, plus cash bars will be available. The traditional AES group photo will be taken.

### **HL/SSAR Live Auction – Salon/Ballroom A**

**9:00 p.m. – midnight**

The HL/SSAR Live Auction is an opportunity to support the programs of SSAR and HL and to clean out your office or house of those interesting and valuable herp or fish related items. Any herp or fish related item - including books, art, sculptures, famous autographs, field equipment, or clothing - is appreciated. Please note that items made from amphibians, reptiles, fish, or parts thereof, should NOT be donated. Donations are tax deductible. Receipts will be issued on request (please request receipt at time of donation).



# Business and Committee Meetings

## Wednesday, 12 July

8:00 a.m.-8:30 a.m.	MMPC Touch base meeting
8:00 a.m. - 2 :00 p.m.	SSAR Board of Directors - Nueces (open to the public)
9:00 a.m. - 1:00 p.m.	AES Executive Committee – Wedgwood Ballroom
9:00 a.m. - 12:00 p.m.	ASIH Past President’s Meeting – Sabine
9:00 a.m. - 1:00 p.m.	ASIH Executive Committee – Blanco
12:00 - 3:00 p.m.	ASIH Names of Fishes – Canadian
2:00 - 5:00 p.m.	ASIH Editorial Policy Committee Meeting – Sabine
2:00 - 5:00 p.m.	AES Board of Directors – Wedgwood Ballroom
2:00 - 6:00 p.m.	HL Board of Trustees – Pecos
5:00 - 7:00 p.m.	ASIH Board of Governors – Salon/Ballroom A
7:00 - 8:00 p.m.	SSAR President’s Travelogue - Salon/Ballroom B

## Thursday, 13 July

9:00 a.m. - 10:00 a.m.	AES Student Business and Store Meeting – Concho
12:00 - 1:30 p.m.	ASIH Judges Meeting – San Marcos
12:00 - 1:30 p.m.	SSAR Seibert Oral and Victor Hutchison Poster Judges Meeting Nueces
12:00 - 1:30 p.m.	SSAR Graduate Student Workshop - Sabine
12:00 - 2:00 p.m.	ASIH Endowment & Finance - Canadian
1:45 - 3:00 p.m.	HL Student Meeting - Brazos

## Friday, 14 July

12:00 - 1:30p.m.	ASIH Herpetological Education Committee - Brazos
12:00 - 1:30 p.m.	ASIH Graduate Student Workshop – Sabine
12:00 - 1:30 p.m.	ASIH Long Range Planning and Policy Meeting – Nueces
12:00 - 1:30 p.m.	AES Student Workshop – Wedgwood Ballroom
2:00 - 5:00 p.m.	SSAR Long Range Planning Meeting – Sabine (open to the public)
2:30 - 4:30 p.m.	ASIH Collections Committee – Nueces
5:00 - 6:30 p.m.	ELHS Business Meeting – Pecos
6:00 - 8:00 p.m.	NIA (Neotropical Ichthyological Association) Meeting - Brazos
6:00 - 9:00 p.m.	HL Business Meeting - Sabine

## Saturday, 15 July

8:00 - 9:30 a.m.	HL Graduate Student Workshop – Nueces
12:00 - 1:30 p.m.	ASIH Graduate Student Business Meeting
12:00 - 1:45 p.m.	ASIH Conservation Committee – Nueces
4:00 - 5:00 p.m.	AES Business Meeting – Wedgwood Ballroom
4:00 - 6:00 p.m.	ASIH Web Content Management Committee – Nueces
6:00 - 8:00 p.m.	SSAR Business Meeting - Salon/Ballroom B
6:30 - 8:30 p.m.	ASIH Student Awards Ceremony and Business Meeting – Glass Oaks Ballroom
8:30 - 9:30 p.m.	SSAR AV Shows – Salon/Ballroom A

## Sunday, 16 July

9:00—11:00 a.m.	Scientific Advisory Board of the Reptile Database—Canadian
12:00 - 1:00 p.m.	NSF Brown Bag – Sabine
12:00 - 1:30 p.m.	ASIH Ichthyological Animal Care Committee – Canadian
12:00 - 1:30 p.m.	JMIH Meeting Management and Planning Committee – Blanco
9:00 p.m.—12 a.m.	HL/SSAR Live Auction—Salon/Ballroom A

# Symposia

## Saturday, 15 July

**8:00 AM – 9:30 AM; 10:00 AM – noon; 1:30 PM – 4:00 PM**

**Wedgwood Ballroom**

**American Elasmobranch Society**

### ***Applications of Physiological Ecology in Elasmobranch Research***

“As technology advances, the research questions we ask become more complex. Consequently, lines that historically divided disciplines are blurred as fields shift towards using more interdisciplinary approaches. Physiological ecology represents an emerging, multidisciplinary research area within the greater field of organismal biology. Accordingly, the demarcation between ecology and physiology is becoming less defined as research in these fields advances and has led to the implementation of academic programs in physiological ecology or environmental physiology across the country (e.g. State University of New York, University of Nevada, and Pennsylvania State University). The inclusion of physiology into ecological studies and vice versa recognizes that both the animal and the environment impact each other, allowing us to elevate traditional studies that propose mechanisms for ecological patterns to testing those mechanisms to support observations.”

#### **Chairs:**

Christine Bedore, Ph.D., Georgia Southern University

Kady Lyons, Ph.D. candidate, University of Calgary

**8:00 AM – 9:30 AM; 10:00 AM – noon; 1:30 PM – 4:00 PM**

**Glass Oaks Ballroom**

**Herpetologists' League, Society for the Study of Amphibians and Reptiles, & American Society of Ichthyologists and Herpetologists**

“The goal of this symposium is to celebrate and extend the legacy of Raymond D. Semlitsch by highlighting work at the cutting edge of amphibian conservation biology. Ray's career was cut short with his untimely death on June 10, 2015. Ray's work touched on a number of areas in herpetology, but amphibian conservation was his passion and the focus of much of his research for the last two decades. Ray's accomplishments included editing a book titled [Amphibian Conservation](#) and publishing more than 240 manuscripts. Ray's work had profound effects on our understanding of the importance of small wetlands, terrestrial buffers around wetlands and streams, movement ecology, and the effects of land-use on amphibians. Ray took risks through the implementation of large-scale field experiments and his involvement in conservation and policy, but these risks paid off. This symposium will bring together top researchers in amphibian conservation to celebrate Ray's legacy, highlight work that pushes the envelope, and discuss research needs to move amphibian conservation forward into the future.”

#### **Chairs:**

Julia Earl, Oklahoma State University

Michelle Boone, Katie O-Donnell, Freya Rowland

# Workshops

## Thursday, 13 July

12:00-1:30 p.m.

Room: Sabine

SSAR Graduate Student Workshop: Details were not available at the time of printing.

## Friday, 14 July

12:00-1:30 p.m.

Room: Sabine

ASIH Graduate Student Workshop: Details were not available at the time of printing.

12:00-1:30 p.m.

Room: Wedgwood Ballroom

AES Student Workshop

### *Integrating science and policy*

Important scientific achievements are sometimes not given the proper attention by policy officials and the non-scientific community. Perhaps now more than ever, integrating science and policy efforts is imperative to maximize the effect of important research. The 2017 AES Student Workshop will bring together a panel of experts to discuss the successful integration of science and policy. The panelists will begin the workshop by discussing what to consider while designing and conducting research that may have important policy implications. Secondly, they will address how to disseminate results to the proper authorities. The experts will then discuss personal experiences of implementing their own research into policy.

Considering the close relationship between science and policy and communicating science to the general public, our panelists will also share their experience and advice on how to successfully interact with members of the non-scientific community. As a student, many situations arise when research methods, objectives, etc must be explained to the broader community. These situations can include submitting funding proposals or giving outreach presentations; the guidance of the panelists will allow students to make the most of these opportunities in the future. Collectively, the 2017 AES Student Workshop will provide students with the necessary knowledge to successfully integrate their research into policy efforts and to effectively communicate their findings to the non-scientific community.

3:00-5:00 p.m.

Room: Brazos

### *AES Science Outreach, Partnership, and Engagement: Broader Impacts and Beyond Workshop (Limited Attendance)*

This workshop is focused on sharing information and engaging meeting attendees on the benefits, opportunities, and practical advice for involving the K-12 community and the public in your scholarship, broadly defined to include outreach, partnership, service-learning, citizen-science, and other forms of high impact engagement. Our workshop will include presenters that work with both the public and K-12 students and their teachers, the benefits of outreach & partnership to all participants (academics, students, and the wider community), how to get started, and information on assessing outreach and partnership efforts.

3:45-5:00 p.m.

Room: Pecos

ELHS/LFC Early Career Event: "Career Planning" (Part A)—*Must be registered for both parts.*

*Limit of 24 Student/EC participants. Limit of 12 Mentors.*

### **How to Find the Right Scientific Career for You**

Do you wonder how and when to start planning your next career move? Are you aware of alternative career paths? This year, the ELHS Early Career Committee (ECC) is organizing a 2-part workshop on Career Planning.

Further details on this ECC Workshop can be found at the ELHS website (<http://earlylifehistory.fisheries.org/>) or by contacting event organizers (Marta Moyano, University of Hamburg and Alison Deary, NOAA Alaska Fisheries Science Center).

# Workshops

## Friday, 14 July cont....

**6:00-8:00 p.m.**  
**Room: Trinity**

### ***ASIH Speed Networking Workshop (Pre-registration required.)***

Scientific meetings offer great opportunities to (re)-establish professional contacts and to network amongst fellow attendees. But younger members may find few opportunities to interface with more senior members of a society. To remedy this, the American Society of Ichthyologists and Herpetologists (ASIH) is again offering an "ASIH Graduate Student Speed Networking Workshop" at the upcoming 2017 Joint Meeting of Ichthyologists and Herpetologists in Austin.

The workshop will be conducted as follows: One professional (working in state or federal agencies, at museums or universities) will be seated at a table in the room. Two students will sit with each professional for ~5 minutes of dialogue, then rotate to the next table when 5 minutes expire. Over the course of an hour, students will visit 11 tables (= 11 professionals), after which all attendees will gather for a mixer (pizza and limited drinks provided, then cash bar).

To participate in this networking event, you must be an ASIH student member in good standing (i.e., paid dues for 2017 ASIH membership) and be registered for the 2017 JMIH meetings.

Also, if you are signed-up for the event but later on decide not to participate, please let us know immediately so another student has the opportunity to attend. Not showing up after registering is not only unprofessional but also unfair to fellow graduate students.

By participating in this workshop, you will hopefully acquire numerous professional contacts with whom you (and your colleagues) can interact during this and future meetings.

## Saturday, 15 July

**8:00-9:30 a.m.**

**Room: Nueces**

**HL Graduate Student Workshop (Prior Registration is required)**

### ***Peer Review: Tips and Tricks to Publishing and Reviewing Articles***

The integrity of science relies in part on the peer review process, and communicating manuscripts with journals and providing thoughtful reviews are essential skills for professional scientists. While graduate students often receive assistance in preparing manuscripts, guidance for communicating with journals and providing reviews may be missing in their training as scientists.

This workshop is designed to help graduate students develop skills in both aspects of publishing. Our panel of experts will provide tips on each step of the publication process from writing cover letters to corresponding with editors and responding to reviews. The workshop will also provide training in the assessment of manuscripts submitted for publication, such as assessing potential problems with data analyses and spotting fatal flaws in experimental design.

To participate in this workshop, you must be a Herpetologists' League (HL) student member in good standing (i.e., paid HL dues for 2017) and be registered for the 2017 Joint Meeting for Societies of Ichthyologists and Herpetologists.

**8:00-2:00 p.m.**

**Room: Sabine**

**Carl Gans Workshop —dedicated to the style and substance of Dr. Carl Gans.**

This workshop will include presentations on remembering how Carl wove anatomy and life history characteristics together, an introduction to the world of digital imagery, axes of investigation and will wrap up with a Q&A with the presenters and an audience participation activity. *Lunch is included.*

**10:30-12:00 p.m.**

**Room: Pecos**

**ELHS/LFC Early Career Follow Up Discussion (Part B)**

# Session and Symposia Master

		THURSDAY	FRIDAY	SATURDAY	SUNDAY	
	ROOM	13-Jul	14-Jul	15-Jul	16-Jul	
AM	Glass Oaks Ballroom	PLENARY (Grand Ballroom )	Lightning Talks/SSAR Seibert Ecology	HL/SSAR/ASIH Symposium: The Science, Management, and Policy of Amphibian Conservation	AES Ecology	
	Salon/Ballroom B	↓	ASIH Stoye General Ichthyology/ASIH Stoye Genetics, Development, & Morphology	Fish Genetics/Fish Biogeography & Morphology/Snake Genetics	Lizard Ecology/Reptile Conservation	
	Wedgwood Ballroom		AES Gruber	AES Symposium: Applications of Physiological Ecology in Elasmobranch Research	Amphibian Conservation	
	Trinity		ASIH Stoye Ecology & Ethology	Texas and Mexican Blindcats/Desert Fishes/Lizard Conservation & Life History	General Herpetology/ Amphibian Biology, Ecology, & Conservation	
	Salon/Ballroom A		ASIH Stoye Conservation	Fish Behavior/Fish Life History/Fish Reproduction & Development	Fish Ecology	
	San Antonio		Herp Ecology	AES Conservation & Management	AES Genetics/Systematics/ Biogeography/ Reproduction/Life History	
	Pecos		LFC Contributed Papers/ Nutrition	LFC Contributed Papers/ LFC Early Career Event Part B	LFC Physiological Performance	
	San Marcos		NIA Best Student Paper/NIA Contributed/Fish Ecology/ SSAR Seibert Systematics & Evolution	Herp Environment/Herp Physiology	Herp Biogeography & Phylogeography	
			LUNCH	LUNCH	LUNCH	LUNCH
PM	Glass Oaks Ballroom		SSAR Seibert Ecology	Lightning Talks	HL/SSAR/ASIH Symposium: The Science, Management, and Policy of Amphibian Conservation	AES Ecology
	Salon/Ballroom B	ASIH Stoye General Ichthyology	ASIH Stoye Genetics, Development, & Morphology	Fish Morphology/Fish Systematics	General Ichthyology	
	Wedgwood Ballroom	AES Gruber	AES Trophic Ecology/ Physiology	AES Symposium: Applications of Physiological Ecology in Elasmobranch Research	Amphibian Conservation	
	Trinity	ASIH Stoye Ecology & Ethology	Reptile Behavior/ Herp Ecology	Turtle Conservation	Herp Systematics/Herp Biogeography & Phylogeography	
	Salon/Ballroom A	ASIH Stoye General Herpetology/ASIH Stoye Physiology & Physiological Ecology/ ASIH Stoye Conservation	SSAR Seibert Conservation	Herp Genetics	Fish Conservation	
	San Antonio	Herp Reproduction & Life History/Herp Behavior	HL Graduate Research Award/Amphibian Behavior/ Turtle Behavior	AES Conservation & Management	AES Behavior/Morphology	
	Pecos	LFC Phenotypic Variation	LFC Multi-Stressor Effects/ LFC Early Career Event Part A	LFC Physiological Performance	LFC Physiological Performance	
	San Marcos		SSAR Seibert Physiology & Morphology	Herp Morphology & Development	Snake Biology/Snake Genomics	
	POSTER SESSIONS		POSTER SESSION I (4:00 p.m.—6:00 p.m.) Rio Grande Exhibit Hall	POSTER SESSION II (4:00 p.m.—6:00 p.m.) Rio Grande Exhibit Hall		
	BUSINESS MEETINGS (Rooms vary)		HL (6 - 8 p.m.) NIA (6-8 p.m.)	AES (4 - 5 p.m.) ASIH (6 - 8 p.m.) SSAR (6 - 8 p.m.)		
EVE	SOCIAL EVENTS	HL/SSAR STUDENT SOCIAL (5:00-6:00 p.m.) Arbor  JMIH OPENING RECEPTION (6:00-9:00 p.m.) The Oasis	ELHS/LFC No Host Social to Downtown Austin (\$20/ person)	AES STUDENT SOCIAL (7:30 p.m.) Location TBD  SSAR AV SHOWS (8:30 p.m.) Grand Ballroom A	AES BANQUET (6 p.m. - midnight) Glass Oaks Ballroom, Renaissance Austin Hotel  ASIH No-Host Event (6 - Midnight) Bus Transportation to & from Down Town Austin  HL/SSAR LIVE AUCTION (9 p.m. - midnight) Salon/Ballroom A	

# Carl Gans Plenary Session

Thursday, 13 July

Renaissance Hotel Austin

Grand Ballroom (Salons A & B)

- 8:00      **Welcome**  
David M. Hillis, Chair, Local Host Committee
- 8:15      **Award Presentations**
- ASIH Gibbs, Fitch and Johnson Awards
  - SSAR/HL/ASIH Meritorious Teaching Award in Herpetology
  - ASIH/AES Meritorious Teaching Award in Ichthyology
  - Spiritus Award
  - HL Ray Semlitsch Award
  - PARC Alison Haskell Award for Excellence in Herpetofaunal Conservation
  - Joseph Nelson Award
- 9:00      **ASIH Past Presidential Address**  
“ASIH has been very, very, good to me: How service to a society enhanced my academic career”  
Maureen Donnelly, Associate Dean for Graduate Studies CASE; Professor, Biological Sciences; Florida International University
- 9:30      **AES Plenary Speaker**  
“Educational Morphology: How Sharks are Inspiring the Next Generation of Morphologists”  
Willy Bemis, Department of Ecology and Evolutionary Biology, Cornell University
- 10:00     **Beverage Break, Grand Ballroom Foyer**
- 10:15     **HL Distinguished Herpetologist**  
“Unisexual Salamanders in the Genus *Ambystoma*: bending and breaking evolutionary stereotype”  
James Bogart, University of Guelph
- 10:45     **Carl Gans Plenary JMIH Lecture**  
“Beauty and the Brain: Insights from Frogs and Fishes”  
Michael J. Ryan, Clark Hubbs Regents Professor, Integrative Biology, University of Texas at Austin
- 11:45 a.m.   **Closing and Announcements**

# Oral Presentations - Thursday, 13 July - Afternoon

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		SSAR SEIBERT ECOLOGY I		ASIH STOYE GENERAL ICHTHYOLOGY I
MODERATOR		Betsie Roethermel		Fernando Alda
1:30 PM	574	Richard Bauer*, Gregory Skupien, Kimberly Andrews, Terry Norton Spatial Patterns of Male American Alligators on a Developed Georgia Barrier Island	517	A.J. Turner*, Fernando Aldo, Prosanta Chakrabarty Range-wide genetic and morphological variation in the sailfin molly, <i>Poecilia latipinna</i>
1:45 PM	406	Madeline Michels-Boyce*, John Krenz, Rachel Cohen, Nora Iburguengoytia Cold-climate adaptation in lizards: A common-garden experiment	537	Diego Elias*, Elyse Parker, Caleb McMahan, Christian Barrientos, Kimberly Foster, Kyle Piller Multi-locus phylogeny of <i>Pseudoxiphophorus</i> (Poeciliidae): Re-evaluation of relationships and geographic distribution
2:00 PM	300	Jeanette Moss*, Mark Welch, Glenn Gerber, Schwirian Aumbriel, Jackson Anna Behavioral ecology of the critically endangered Sister Islands rock iguana ( <i>Cyclura nubiola caymanensis</i> ): ongoing investigations into patterns of mate choice, dispersal, and nesting	513	C. Elyse Parker*, Kyle R. Piller Using statistical model choice to infer the biogeographic history of the live-bearing splitfins (Cyprinodontiformes: Goodeinae) in the Mesa Central of Mexico
2:15 PM	712	Brian Folt*, Craig Guyer Effects of Invertebrate Predators on Vertebrate Prey are Strong but Inconsistent with the Mainland-island Model of Anole Population Regulation	463	Maxwell J. Bernt*, James S. Albert Phylogeny and Historical Biogeography of the Ghost Knifefishes (Gymnotiformes: Apterontidae)
2:30 PM	161	Heather Neilly, Eric Nordberg*, Jeremy VanDerWal, Lin Schwarzkopf Arboreality Increases Reptile Community Resilience to Disturbance From Livestock Grazing	880	Joshua Millwood*, Michael Sandel, David Neely Environmental and Phylogenetic Effects on the Dermal Microbiome of Mobile Basin Sculpin (Teleostei: Cottus)
2:45 PM	335	Timothy Borgardt* Habitat Preference, Movement Patterns, and Behavior of the Timber Rattlesnake in southeastern Louisiana	548	Kory Evans*, Brian Schubert, James Albert Developmental bias facilitates trophic diversification in Amazonian electric fishes
3:00 PM		BREAK - Rio Grande Hall		
SESSION/ SYMPOSIUM		SSAR SEIBERT ECOLOGY II		ASIH STOYE GENERAL ICHTHYOLOGY II
MODERATOR		Tracy Rittenhouse		John Denton
3:30 PM	149	Iwo Gross*, Yong Wang, Callie Schweitzer Tracking dispersal and habitat use of neonatal copperheads ( <i>Crotalinae</i> ; <i>Agkistrodon</i> ) using harmonic radar technology	490	Kyle Dineen*, Brook Fluker Genetic Structure and Diversity of Disjunct Populations of Rainbow Darters ( <i>Etheostoma caeruleum</i> ) and Southern Redbelly Dace ( <i>Chrosomus erythrogaster</i> ) Throughout the Mississippi Corridor
3:45 PM	709	Shawn Snyder*, William Sutton, Christopher Howey Differentiation in Basking Habitat between Yellow and Black Morph Timber Rattlesnakes	707	Jessica Grady*, C.M. Gienger, Rebecca E. Blanton Factors Affecting Scale Shape Variation in <i>Etheostomatinae</i> Darters
4:00 PM	653	Scott Goetz*, James Godwin, Fred Antonio, Michelle Hoffman, David Steen Indigo Snakes Prefer Pit Vipers When Neonates But Not After A Year in Captivity	526	Courtney Weyand*, Kyle Piller Phylogeography of the Rosyside Dace, <i>Clinostomus funduloides</i> (Teleostei: Cyprinidae)
4:15 PM	777	Brent Newman*, Scott Henke, Susan Koenig, David Wester, Humberto Perotto-Baldivieso, Taylor Shedd Determining the Suitability of the Jamaican Boa ( <i>Chilabothrus subflavus</i> ) for Short-Distance Translocation in Cockpit Country, Jamaica	272	William Ludt*, Christopher Burrige, Thomas Near, Prosanta Chakrabarty Understanding Anti-Tropical Distributions in <i>Centrarchiformes</i>
4:30 PM	88	Miranda Figueras*, Kent Hatch, Timothy Green, Russell Burke Consumption and Assimilation Patterns of the Eastern Box Turtle, Diet Generalists	471	Adela Roa-Varon*, Eric J. Hilton, Chenhong Li Using Phylogenomics to Study the Interrelationships of <i>Gadiiformes</i>
4:45 PM	398	Stephanie Lamb*, Eric Liebgold Estimating Habitat and Population Parameters of Spotted Turtles ( <i>Clemmys guttata</i> ) on the Delmarva Peninsula	457	Matthew Girard*, Leo Smith Relationships of carangiform fishes: a total evidence approach

\* denotes presenter

# Oral Presentations - Thursday, 13 July - Afternoon

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	<b>AES GRUBER I</b>		<b>ASIH STOYE ECOLOGY &amp; ETHOLOGY I</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Dean Grubbs</b>		<b>Brian Halstead</b>	<b>MODERATOR</b>
560	<p style="text-align: center;"><b>Cody Nash*, Jill Hendon, Toby Daly-Engel</b></p> <p>Reproductive periodicity and the frequency of multiple paternity in the finetooth shark, <i>Carcharhinus isodon</i>, in the Northern Gulf of Mexico</p>	446	<p><b>Donald McKnight*, Roger Huerlimann, Lin Schwarzkopf, Ross Alford, Deborah Bower, Kyall Zenger</b></p> <p>The Role of Microbial Communities in the Recovery of Rainforest Frogs</p>	1:30 PM
542	<p style="text-align: center;"><b>Chelsea Shields*, Jim Gelsleichter, Bryan Frazier</b></p> <p>Reproduction of the tiger shark (<i>Galeocerdo cuvier</i>) off of South Carolina</p>	168	<p style="text-align: center;"><b>Kelsey Reider*, Tracie Seimon, Alessandro Catenazzi, Maureen Donnelly</b></p> <p>Seasonality of Bd Prevalence and Infection Intensity in High Elevation Anuran Populations in the Cordillera Vilcanota, Perú</p>	1:45 PM
118	<p style="text-align: center;"><b>Kat Mowle*, Jim Gelsleichter</b></p> <p>Characterization of vitellogenesis in the bonnethead shark <i>Sphyrna tiburo</i> in the Northwestern Atlantic Ocean</p>	236	<p style="text-align: center;"><b>Catharina Karlsson*, David Bickford, Paul Yambun, Ryan Chisholm</b></p> <p>Temporal Partitioning of Calling Activity in the Amphibian Community at Kinabalu Park</p>	2:00 PM
275	<p style="text-align: center;"><b>Kelsey James*, Lisa Natanson</b></p> <p>Does sex change everything? The relationship between band pair deposition and maturity in the Little Skate, <i>Leucoraja erinacea</i></p>	110	<p style="text-align: center;"><b>Erin Kenison*, Rod Williams</b></p> <p>Environmental Conditioning goes Swimmingly for Eastern Hellbenders (<i>Cryptobranchus alleganiensis alleganiensis</i>)</p>	2:15 PM
415	<p style="text-align: center;"><b>Emily Seubert*, John Valentine, J. Marcus Drymon</b></p> <p>Evaluating ecosystem resiliency through catch data and stable isotope analysis of common elasmobranchs across the northern Gulf of Mexico</p>	76	<p style="text-align: center;"><b>Kira McEntire*, John Maerz</b></p> <p>Integrating Biophysical and Individual Based Models to Simulate How Habitat Structure and Behavior Moderate Salamander Sensitivity to Climate</p>	2:30 PM
627	<p style="text-align: center;"><b>Samantha Leigh*, Sarah Hoffmann, Adam Summers, Donovan German</b></p> <p>Spiraling into Control: Investigating the Function of the Spiral Intestine in Elasmobranchs</p>	61	<p style="text-align: center;"><b>James Erdmann*</b></p> <p>This Little Piggy: Why do Amphibians Vibrate Their Feet While Hunting?</p>	2:45 PM
<b>BREAK - Rio Grande Hall</b>				<b>3:00 PM</b>
	<b>AES GRUBER II</b>		<b>ASIH STOYE ECOLOGY &amp; ETHOLOGY II</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Kevin Weng</b>		<b>Mark Peterson</b>	<b>MODERATOR</b>
558	<p style="text-align: center;"><b>Emily Meese*, Chris Lowe</b></p> <p>Diel movements and fine-scale activity patterns across heterogeneous thermal environments of the CA horn shark, <i>Heterodontus francisci</i></p>	749	<p style="text-align: center;"><b>Lauren Kircher*, Jessica Noble, Joy Young, John Baldwin</b></p> <p>Hydrologic Changes in the St. Lucie Estuary and Implications for Snook Movement Patterns</p>	3:30 PM
384	<p style="text-align: center;"><b>Grace Casselberry*, Andy Danylchuk, John Finn, Bryan DeAngelis, Gregory Skomal</b></p> <p>Using Network Analysis to Examine the Spatial Ecology of the Shark Community in Buck Island Reef National Monument, St. Croix, USVI</p>	525	<p style="text-align: center;"><b>Jason D. Selwyn*, Paolo Usseglio, J. Derek Hogan</b></p> <p>Fine-scale microhabitat usage of a putative habitat generalist reef dwelling goby, <i>Coryphopterus personatus</i></p>	3:45 PM
54	<p style="text-align: center;"><b>Judith Bakker*, Owen Wangensteen, Demian Chapman, Germain Boussarie, Dayne Buddo, Tristan Guttridge, Heidi Hertler, David Mouillot, Laurent Vigliola, Stefano Mariani</b></p> <p>Environmental DNA Reveals Tropical Shark Diversity and Abundance in Contrasting levels of Anthropogenic Impact</p>	609	<p style="text-align: center;"><b>Jessica Noble*, Lauren Kircher, Matia Gringas, Lisette Geubelle, Joy Young, John Baldwin</b></p> <p>Effects of a Disturbance Event on Fine Scale Movement and Population Dynamics of an Estuarine Sportfish</p>	4:00 PM
383	<p style="text-align: center;"><b>Thomas C. TinHan*, J. Marcus Drymon, Brett Falterman, Gregory W. Stunz, Matthew J. Ajemian, John A. Mohan, Eric R. Hoffmayer, William B. Driggers III, Jennifer A. McKinney, R. J. David Wells</b></p> <p>Space Use and Habitat Preferences of Scalloped Hammerheads in the Northern Gulf of Mexico</p>	739	<p style="text-align: center;"><b>Travis Richards*, Tracey Sutton, David Wells</b></p> <p>Spatial and temporal patterns of distribution and relative abundance of meso- and bathypelagic micronekton in the northern Gulf of Mexico</p>	4:15 PM
339	<p style="text-align: center;"><b>Kyle Newton*, Stephen Kajiura</b></p> <p>Cognition and magnetoreception in the yellow stingray, <i>Urobatis jamaicensis</i>, and their potential roles in elasmobranch orientation and navigation</p>	370	<p style="text-align: center;"><b>Stephanie Benseman*, Larry Allen</b></p> <p>The Secret Life of Baby Giants: The Recruitment of the Endangered Giant Sea Bass</p>	4:30 PM
170	<p style="text-align: center;"><b>Sarah Hoffmann*, Samantha Leigh, Cassandra Donatelli, Elizabeth Brainerd, Marianne Porter</b></p> <p>Three-Dimensional Movements of the Pectoral Fin During Routine Turns in the Pacific Spiny Dogfish, <i>Squalus suckleyi</i></p>	506	<p style="text-align: center;"><b>Matthew S. Woodstock*, Christopher A. Blonar, Tracey T. Sutton</b></p> <p>A Comparison of the Parasite Fauna and Trophic Ecology of Vertically Migrating and Non-migrating Mesopelagic Fishes in the Northern Gulf of Mexico</p>	4:45 PM

\* denotes presenter



# Oral Presentations - Thursday, 13 July - Afternoon

ROOM		<i>Salon/Ballroom A</i>		<i>San Antonio</i>
SESSION/ SYMPOSIUM		ASIH STOYE GENERAL HERPETOLOGY/ ASIH STOYE PHYSIOLOGY & PHYSIOLOGICAL ECOLOGY I		HERP REPRODUCTION & LIFE HISTORY I
MODERATOR		Abigail Berkey		Nicole Valenzuela
1:30 PM	654	<b>GH - Rebecca Tarvin*, Cecilia Borghese, Wiebke Sachs, Juan Santos, Lauren O'Connell, David Canatella, Adron Harris, Harold Zakon</b>  Evolution of Resistance to Epibatidine, a Potent and Toxic Analgesic Alkaloid, In Dendrobatid Poison Frogs	716	<b>Zachary C. Adcock*, Michael R.J. Forstner</b>  Reproductive Ecology of Federally Threatened Jollyville Plateau Salamanders ( <i>Eurycea tonkawae</i> ) with Comments on Management Implications
1:45 PM	55	<b>GH - Connor French*, Jason Brown</b>  Climate Fluctuation as a Driver of Diversification in Peruvian Poison Frogs	23	<b>Joseph Butler*, J. David Lambert, Daniel Murphy</b>  Concentrations and Nest Preferences of Carolina Diamondback Terrapins, <i>Malaclemys terrapin centrata</i> , in Northeast Florida
2:00 PM	178	<b>GH - Jeronimo Gomes Da Silva Neto*, William Sutton, Stephen Spear, Michael Freake</b>  The Use of Species Distribution Models (SDMs) and Environmental DNA to Evaluate the Distribution of the Eastern Hellbender ( <i>Cryptobranchus alleganiensis alleganiensis</i> ) in Tennessee, U.S.A.	202	<b>Katherine Greenwald*, Marisa Hildebrandt, Kelsey Mitchell</b>  Context-dependent Use of "Stolen Sperm" by Unisexual <i>Ambystoma</i> Salamanders
2:15 PM	479	<b>GH - Anat Belasen*, Tim James</b>  How does long-term habitat fragmentation affect disease susceptibility? Examining the relationships between geography, host genetics, and disease in a Brazilian Atlantic Forest frog	144	<b>Jennifer Deitloff*, Erin Myers, Stephen Spear, Dirk Stevenson, Craig Guyer</b>  Multiple paternity and heritability of color in <i>Drymarchon couperi</i> (Eastern Indigo Snake)
2:30 PM	20	<b>PPE - Michelle E. Thompson*, Maureen A. Donnelly</b>  Thermal Quality Influences Habitat Use of Two Anole Species	276	<b>Jesus Rivas*</b>  Exploring the Life of an Extinct Giant Snake Using a Current Pretty Big Snakes: What Studying Anacondas Can Tell Us About Titanoboa
2:45 PM			302	<b>Kristina Cohen*, Karen Warkentin</b>  Different Hatching Mechanisms but Similar Escape-hatching Processes in Two Neotropical Treefrogs
3:00 PM		<b>BREAK - Rio Grande Hall</b>		
SESSION/ SYMPOSIUM		ASIH STOYE PHYSIOLOGY & PHYSIOLOGICAL ECOLOGY II/ ASIH STOYE CONSERVATION I		HERP REPRODUCTION & LIFE HISTORY II/ HERP BEHAVIOR I
MODERATOR		Jan McDowell		Nathan Byer
3:30 PM	155	<b>PPE - Drew Davis*, Jacob Kerby</b>  Physiological Stress and Pathogen Infection in Larval Salamanders from Wetlands Influenced by Agriculture	591	<b>Nathan Byer*, Brendan Reid, M. Zachariah Peery</b>  Perspectives on maternal selfishness: does female risk influence nesting behavior in the Blanding's Turtle?
3:45 PM	872	<b>PPE - David Saenz*, Michael Markham, Kirk Winemiller, Jose Alves Gomes</b>  Effects of Melanocortin Hormones on the Electric Organ Discharge of Two Weakly Electric Fish	618	<b>Brian Shamblyn*, Mark Dodd, Michelle Pate, DuBose Griffin, Matthew Godfrey, Michael Coyne, Ruth Boettcher, Campbell Nairn</b>  Nest Site Fidelity of Loggerhead Turtles Characterized Through Genetic Tagging
4:00 PM	883	<b>PPE - Michelle Herrera*, Joseph Heras, Donovan German</b>  Digestive Specialization in the Family Stichaeidae: Molecular Underpinnings and Potential for Plasticity	802	<b>Andrew R. Wastell, Stephen P. Mackessy*</b>  Desert Massasauga Rattlesnakes in Colorado
4:15 PM	277	<b>PPE - McKayla Spencer*, C. M. Gienger</b>  Comparative Energetics and Responses to Feeding of Copperhead and Cottonmouth Snakes ( <i>Agkistrodon</i> )	495	<b>Michele A. Johnson*, Daisy M. Horr, Ellee G. Cook, Bonnie K. Kircher</b>  The Phylogeny of Lizard Display: An Analysis of Color, Motion, and Sound in Communication
4:30 PM	467	<b>PPE - Denita Weeks*, Matthew Parris</b>  Immunity is Skin Deep: Considering Microbial Pesticides as a Disease Mitigation Strategy for Chytridiomycosis	866	<b>John Maerz*, Jillian Howard, Kira McEntire</b>  Climate affects spatial patterns of hybridization between two salamander species
4:45 PM	568	<b>Katie Mascovich*, Kimberly Andrews</b>  Messages in the Sand: Nesting Loggerhead Sea Turtle ( <i>Caretta caretta</i> ) Crawl Behavior on a Developed Beach		

\* denotes presenter

GH = ASIH Stoye General Herpetology

PPE = ASIH Stoye Physiology & Physiological Ecology

# Oral Presentations - Thursday, 13 July - Afternoon

	<i>Pecos</i>		<i>San Marcos</i>	ROOM
	<b>LFC PHENOTYPIC VARIATION I</b>			<b>SESSION/ SYMPOSIUM</b>
	<b>Klaus Huebert</b>			<b>MODERATOR</b>
	<b>C. Chambers</b> Introduction: Phenotypic Variation Assessing and Evaluating Phenotypic Variation in Fish Early Life History Stages: Field Studies, Experiments and Modeling.			<b>1:30 PM</b>
<b>143</b>	<b>Pierre Pepin*</b> Feeding Patterns in Larval Fish: How Taxonomy, Behaviour and Morphology affect Differences among Individuals and Species			<b>1:45 PM</b>
				<b>2:00 PM</b>
<b>774</b>	<b>Stuart Ludsins*, Kevin Pangle, Lucia Carreon-Martinez, Alison Drelich, Brian Fryer, Daniel Heath, Timothy Johnson, Julie Reichert, Jeffrey Tyson, Kyle Wellband</b> Does variation in larval growth rate affect the recruitment of freshwater fishes? A case study with Lake Erie Yellow Perch			<b>2:15 PM</b>
				<b>2:30 PM</b>
				<b>2:45 PM</b>
<b>BREAK - Rio Grande Hall</b>				<b>3:00 PM</b>
	<b>LFC PHENOTYPIC VARIATION II</b>			<b>SESSION/ SYMPOSIUM</b>
	<b>Tom Miller</b>			<b>MODERATOR</b>
<b>145</b>	<b>Hannes Baumann*, Jacob Snyder, Christopher Murray</b> Quantifying Offspring CO2 Sensitivity In A Fish: A Meta-Analysis Of Experimental Variability			<b>3:30 PM</b>
				<b>3:45 PM</b>
<b>875</b>	<b>SLR - Raven M.C. Benko*, R. Christopher Chambers</b> Sources of Variation in Early Life Traits of Atlantic Silverside, <i>Menidia menidia</i>			<b>4:00 PM</b>
<b>4</b>	<b>R Christopher Chambers*</b> Thermal Reaction Norms of Early Life Stages of Mid-Atlantic Estuarine Fishes			<b>4:15 PM</b>
				<b>4:30 PM</b>
	<b>Discussion:</b> Phenotypic Variation			<b>4:45 PM</b>
			<b>ASIH Judges Meeting noon - 1:30 PM</b>	

\* denotes presenter

SLR= Sally L. Richardson Best Student Paper

# Oral Presentations - Friday, 14 July - Morning

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		LIGHTNING TALKS I		ASIH STOYE GENERAL ICHTHYOLOGY III
MODERATOR		David Green		Hannah Owens
8:00 AM		<b>584 White; 338 Martin; 44 Mundy; 81 Burke; 587 Hedrick; 87 Poo; 269 Mitchell; 153 Kelehear; 210 Palenske; 521 Hart; 472 Faria; 874 Welch</b>	69	<b>Randy Singer*, Jon Moore</b>  Finding Dories: Variation in Parazen pacificus (Zeiformes: Parazenidae: Parazen) with the discovery of an undocumented reproductive strategy in a deep sea fish
8:15 AM			825	<b>Joel Corush*, Evin Carter, Benjamin Fitzpatrick</b>  Effects of Diadromous Life Histories on Genetic Diversity and Population Structure in Fishes
8:30 AM			785	<b>David Camak*, Thomas Turner</b>  Estimating Levels of Introgression between Gila Trout (Oncorhynchus gilae) and Rainbow Trout (O. mykiss) using Next-generation Sequencing Data
8:45 AM			438	<b>Caitlin McGarigal*, Chris Lowe</b>  Behavioral Effects of Angling and Handling Stresses on Kelp Bass, Paralabrax clathratus, in Southern California
9:00 AM			211	<b>Naomi Delventhal*, Randall Mooi</b>  Intra-relationships of Callogobius (Teleostei:Gobiidae) - A Morphological Approach
9:15 AM			254	<b>Diego Vaz*, Eric Hilton, Adam Summers</b>  Title: The Intermuscular Bones and Ligaments of Batrachoidiformes (Percomorphacea: Teleostei)
9:30 AM			<b>BREAK - Rio Grande Hall</b>	
SESSION/ SYMPOSIUM		SSAR SEIBERT ECOLOGY III		ASIH STOYE GENETICS, DEVELOPMENT, & MORPHOLOGY I
MODERATOR		Russ Burke		David Cannatella
10:00 AM	382	<b>Kelsey A. Marchand*, Christopher M. Somers, Ray G. Poulin</b>  You are Where you Eat: Isotopic Resource Use of Urban Western Painted Turtles (Chrysemys picta bellii) in Regina, Saskatchewan	403	<b>Evan McCartney-Melstad*, Jannet Vu, H. Bradley Shaffer</b>  Fine-Scale Population Genomics of Protected Tiger Salamanders (Ambystoma tigrinum) on Long Island, NY Reveals a Highly Structured Species Impacted by Major Roads
10:15 AM	154	<b>Nicole White*, Betsie Rothermel, Kelly Zamudio, Tracey Tuberville</b>  Male Size Drives Siring Success in the Gopher Tortoise (Gopherus polyphemus)	52	<b>Erica Baken*, Dean Adams</b>  Life in Trees: Macroevolution of Morphology and Diversity in Arboreal Plethodontid Salamanders
10:30 AM			433	<b>Nicole Witzel*, Ali Taheri, William Sutton</b>  Detecting the Presence and Abundance of Streamside Salamanders (Ambystoma barbouri) in Middle Tennessee Using Environmental DNA
10:45 AM	409	<b>Bailey Patillo*, Matthew Parris</b>  Impacts of Larval Exposure to Predators and Post-metamorphic Exposure to Chytrid Fungus on Growth in Spotted Salamanders	820	<b>Ariel Horner*, Emily Karwacki, Cassandra Sarria, Anna Savage</b>  Ribbiting results: emergent pathogen dynamics vary spatially and temporally in subtropical wetland communities
11:00 AM	195	<b>Tatum Katz*, Amanda Zellmer</b>  Incorporating Model Selection in Predicting The Spread of Invasive Fungal Pathogen Batrachochytrium salamandrivorans	410	<b>Tyler Chafin*, Marlis Douglas, Michael Douglas</b>  Differential introgression suggests a mosaic hybrid zone in Gila of the Colorado River Basin
11:15 AM	746	<b>Samantha Dean*, James Gibbs, Brian Underwood</b>  Influence of Habitat Edges and Recreational Trails on the Distribution and Abundance of Amphibians in an Urban Protected Area	856	<b>Jason Strickland*, Miguel Borja, Andrew Mason, Darin Rokyta, Christopher Parkinson</b>  Venom evolution in Mojave Rattlesnakes, Crotalus scutulatus
11:30 AM	545	<b>Samantha Thomas*</b>  Landscape Genetics of California Tiger Salamanders: Inferences from multiple methods		
11:45 AM				
12:00 PM		<b>LUNCH ON YOUR OWN</b>		
* denotes presenter		<b>Save our Seas Foundation 6:30 - 9:00 PM</b>		<b>ASIH Speed Networking 6:00 - 8:00 PM</b>

# Oral Presentations - Friday, 14 July - Morning

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	AES GRUBER III		ASIH STOYE ECOLOGY & ETHOLOGY III	SESSION/ SYMPOSIUM
	Nick Dulvy		Tiffany Doan	MODERATOR
138	<b>Matthew Davis*, Pablo Suárez-Moo, Toby Daly-Engel</b> Population Structure and Phylogenetics of Atlantic and Caribbean Sharpnose Sharks (Genus: Rhizoprionodon)	273	<b>Jessica Sanchez*, Joel Trexler</b> Testing alternative hypotheses for the evolution of herbivory using the Sailfin Molly ( <i>Poecilia latipinna</i> )	8:00 AM
216	<b>Pavel Dimens*, David Portnoy</b> Population structure of a migratory small coastal shark, <i>Carcharhinus acronotus</i> , across cryptic barriers to gene flow	320	<b>Nina Pruzinsky*, Tracey Sutton</b> Faunal Composition and Spatiotemporal Dynamics of Tuna (Family: Scombridae) Early Life Stages in the Oceanic Gulf of Mexico	8:15 AM
189	<b>Kelcee Smith*, Michael Kaller, John Carlson, Dana Bethea, Kevin Feldheim, William Kelso, Sabrina Taylor</b> Combining capture and genetic data to estimate population size of juvenile endangered Smalltooth Sawfish ( <i>Pristis pectinata</i> )	528	<b>Michael Novotny*, Tracey Sutton</b> Assemblage structure and trophic ecology of the bathypelagic fish family Platytroctidae in the northern Gulf of Mexico	8:30 AM
824	<b>Jeanette Huber*, Gavin Naylor</b> Global Population Structure and Historical Demography of the Endangered Sawfish (Family Pristidae)	745	<b>Gareth Blakemore*, Kristina Bozanich, Chris Feldman</b> We Want a Shrubbery! Cheatgrass ( <i>Bromus tectorum</i> ) Modified Habitat has Altered the Thermal Landscape for Reptiles in the Great Basin	8:45 AM
853	<b>Cristin Keelin Fitzpatrick*, Kimberly Finnegan, Andrea Bernard, Filip Osaer, Krupskaya Narváez, Mahmood Shivji</b> Almost Angels? The Critically Endangered Angelshark ( <i>Squatina squatina</i> ) in its Last Refuge, the Canary Islands	672	<b>Jennie Mook*, Raymond Moody, Eric Schaubert</b> The Social Behavior and Ecology of Hatchling Texas Horned Lizards ( <i>Phrynosoma cornutum</i> )	9:00 AM
				9:15 AM
<b>BREAK - Rio Grand Hall</b>				9:30 AM
	AES GRUBER IV		ASIH STOYE ECOLOGY & ETHOLOGY IV	SESSION/ SYMPOSIUM
	Chris Lowe		Chris Beachy	MODERATOR
274	<b>Simon Dedman*, Rick Officer, Deirdre Brophy, Maurice Clarke, Dave Reid</b> Mapping Elasmobranchs with Gbm.auto - a Decision Support Tool automating Boosted Regression Tree modelling of data-poor species abundance using environmental and human inputs, mapping essential habitats, and designing MSY-based MPAs considering stakeholder priorities	830	<b>Christina Coppentrath*, Jacob Lasala, Matia Gingras, Noi Meersohn, John Baldwin</b> Identifying Important Foraging Grounds for Florida's Nesting Leatherback Turtles ( <i>Dermochelys coriacea</i> )	10:00 AM
534	<b>Madeline Self Cashion*, Nicolas Bailly, Daniel Pauly</b> A Shark by any Other Name: Catch Reporting Quality in the Mediterranean Sea	140	<b>Amanda DiBella*, Scott L. Parker</b> Dietary Composition and Prey Selectivity of the Diamondback Terrapin ( <i>Malaclemys terrapin</i> ) in North Inlet, SC	10:15 AM
12	<b>John Whalen, Jim Gelsleichter*</b> A multibiomarker analysis of pollutant effects on Atlantic stingray populations in Florida's St. Johns River	366	<b>Megan Novak*, Scott L. Parker</b> Through Thick and Thin: Comparative Skull Anatomy of Terrestrial and Crevice-dwelling <i>Trachylepis</i> Skinks (Squamata: Scincidae) using microCT	10:30 AM
293	<b>Samantha Ehnert*, Jim Gelsleichter</b> Mercury Accumulation and Effects in the Brain of Atlantic Sharpnose Sharks ( <i>Rhizoprionodon terraenovae</i> )	252	<b>Matthew Acre*, Timothy Grabowksi, Dakus Geeslin, Allison Pease, Nate Smith</b> Movements and Demography of <i>Cycleptus elongatus</i> in the lower Colorado River, TX	10:45 AM
124	<b>Bianca Prohaska*, R Dean Grubbs</b> Stress Physiology of Deep Demersal Sharks in the Gulf of Mexico	679	<b>Ryan Logan*, Christopher Lowe</b> Area Use and Spawning Activity of Three Exploited Gamefishes on a Large Artificial Reef Inferred from Passive Acoustic Telemetry	11:00 AM
554	<b>Dan Crear*, Rich Brill, Peter Bushnell, Kevin Weng</b> The Impact of Climate Change on the Physiology of Sandbar Sharks, <i>Carcharhinus plumbeus</i>	13	<b>John Gatto*, Joel Trexler</b> Using Agent Based Modeling to Describe Dispersal Potential in the Florida Everglades	11:15 AM
778	<b>John Swenson*, Karen Crow</b> How the Devil Ray got its horns: The molecular evolution and development of the Myliobatid body plan	340	<b>Jon Davenport*, Alex Riley, Peter Constantides</b> Plants Versus Salamanders: The Effects of Competition on Spotted Salamander and Bladderwort Life History	11:30 AM
				11:45 AM
<b>LUNCH ON YOUR OWN</b>				12:00 PM

\* denotes presenter

# Oral Presentations - Friday, 14 July - Morning

ROOM		<i>Salon/Ballroom A</i>		<i>San Antonio</i>
SESSION/ SYMPOSIUM		<b>ASIH STOYE CONSERVATION II</b>		<b>HERP ECOLOGY I</b>
MODERATOR		<b>Alessandro Catenazzi</b>		<b>John Placyk</b>
8:00 AM	879	<b>Victoria Rodriguez*, Chad W. Hargrave, Christopher P. Randle</b> Hybridization Between Two Livebearing Fish, the Endangered <i>Gambusia nobilis</i> and Introduced <i>Gambusia geiseri</i> , in Texas	114	<b>Mitch Barazowski, Neil Ford, Josh Banta, Marsha Williams, John Placyk*</b> Integrating habitat suitability modeling and radio telemetry to describe habitat use of the Western Massasauga, <i>Sistrurus t. tergeminus</i> , in Texas
8:15 AM	368	<b>D. Cooper Campbell*, Kyle Piller</b> Mysteries of the gene pool: Population genetics of springfish and poolfish (Goodeidae: <i>Crenichthys</i> and <i>Empetrichthys</i> )	106	<b>Christopher Marshall*, Joshua Cullen, Mehsein Al-Ansi</b> Hawksbill Sea Turtle ( <i>Eretmochelys imbricata</i> ) Spatial Movement in an Extreme Environment: The Arabian Gulf as a Living Laboratory for Investigating Organismal Response to Climate Change
8:30 AM	373	<b>Joshua Stonecipher*, Rebecca Blanton</b> Conservation status and population genetic structure of the Smallscale Darter, <i>Nothonotus microlepidus</i>	882	<b>Jeffrey Seminoff*, Lisa Komoroske, Peter Dutton, Miguel Donoso, Maïke Heidemeyer, Gabriel Hoeffler, T. Todd Jones, Shaleyla Kelez, Garrett Lemons, Nelly de Paz, Juan Manuel Rodriguez Baron, Laura Sampson, Lucia Santos Baca, Joel Schumacher, Maria Vejar Rubio, Patricia Zarate, Alan Zavala, Brian Popp</b> Trophic Ecology of Green Sea Turtles Across the Eastern Pacific Ocean: Insights from Bulk Tissue and Compound Specific Stable Isotope Analysis
8:45 AM	360	<b>Brooke Washburn*, Mollie Cashner, Rebecca Blanton</b> Islands in the stream, is that what we are: assessing the spatial scale of genetic diversity in the endangered Tuxedo Darter, <i>Etheostoma lemniscatum</i>	73	<b>Rick Shine*, Claire Goiran, Paco Bustamante</b> Industrial melanism in a seasnake
9:00 AM	85	<b>Taylor Lee*, Brook Fluor</b> Environmental DNA vs. Traditional Sampling: a Case Study Using the Federally Threatened Leopard Darter, <i>Percina pantherina</i>	142	<b>Kyle (Marty) Brown*, Amelia Russell, Michaela Lambert, Tracey Tuberville, Melissa Pilgrim</b> Bioaccumulation of <sup>137</sup> Cs in Florida Green Watersnakes ( <i>Nerodia floridana</i> ) inhabiting former nuclear cooling reservoirs on the Savannah River Site
9:15 AM	407	<b>Luke J. Linhoff*, Maureen A. Donnelly</b> Evidence of domestication processes in captive-bred amphibians and implications for conservation reintroductions	128	<b>Brad M. Glorioso*, J. Hardin Waddle, Lindy J. Muse, Jeffrey M. Lorch</b> Snake Fungal Disease in a Louisiana Snake Assemblage
9:30 AM		<b>BREAK - Rio Grande Hall</b>		
SESSION/ SYMPOSIUM		<b>ASIH STOYE CONSERVATION III</b>		<b>HERP ECOLOGY II</b>
MODERATOR		<b>Maureen Donnelly</b>		<b>Amanda Zellmer</b>
10:00 AM	152	<b>Leah Nagel*, James Gibbs</b> From Egg to Adult: Factors Influencing Amphibian Survival in Small, Isolated Wetlands	567	<b>Jonathan Rose*, Brian Halstead, Glenn Wylie, Michael Casazza</b> Spatial and temporal variation in growth of the threatened giant gartersnake, <i>Thamnophis gigas</i> , in the Sacramento Valley, California
10:15 AM	372	<b>Ciara Brodie*, Sean Graham</b> Surrogate Riparian Habitat Use of the Big Bend Slider Turtle ( <i>Trachemys gaigeae</i> ) in the Chihuahuan Desert	828	<b>Graham Dawson*, Stephen Mackessy</b> Fourteen-year Demographic Analysis of <i>Crotalus viridis viridis</i> Hibernacula in Northern Colorado
10:30 AM	692	<b>Steven J. Hromada*, C. A. F. Howey, C. M. Gienger</b> Response of Reptile and Amphibian Communities to Prescribed Fire in Oak/Hickory Forests	72	<b>Brian Todd*, Justin Nowakowski</b> Meta-Analysis of Telemetry Studies Reveals Surprising Patterns of Home Range Scaling in Snakes
10:45 AM	511	<b>Brittany L. McCall*, Brook L. Fluker</b> Stability at Low Densities or Endangered? Spatiotemporal Population Dynamics of the Caddo Madtom ( <i>Noturus taylori</i> )	884	<b>Amanda J. Zellmer*, Gregory B. Pauly</b> Citizen Science Elucidates Urban Habitat Usage by Batrachoseps Salamanders
11:00 AM	104	<b>Christopher Malinowski*, Felicia Coleman, Christopher Koenig</b> Mercury in Atlantic Goliath Grouper ( <i>Epinephelus itajara</i> ): sources, bioaccumulation patterns, and potential impacts to population recovery	350	<b>Paul Bartelt*, Alyse DeVries</b> Response of Eastern Tiger Salamanders to Restored Wetlands on an Agricultural Landscape in North Central Iowa
11:15 AM	826	<b>Melanie Partin*</b> Physiological Stress in <i>Hyla</i> <i>chrysoscelis</i> - Could Traffic Noise be a Contributing Factor?	533	<b>Brian Halstead*, Patrick Kleeman, Gary Fellers</b> Effects of Drought on the Demography of a Meadow Population of Sierra Nevada Yellow-legged Frogs ( <i>Rana sierrae</i> )
11:30 AM	442	<b>Kelsey Low*, Matthew Allender, Christopher Phillips, Steven Kimble</b> A ranavirus-associated mass mortality event in an Illinois amphibian community		
11:45 AM	40	<b>Anthony W. Waddle*, Jef R. Jaeger, Frank van Breukelen</b> Emerging Infectious Disease and the Decline of the Imperiled Relict Leopard Frog		
12:00 PM		<b>LUNCH ON YOUR OWN</b>		

\* denotes presenter

# Oral Presentations - Friday, 14 July - Morning

	<i>Pecos</i>		<i>San Marcos</i>	ROOM
	LFC CONTRIBUTED I		NIA BEST STUDENT PAPER/NIA CONTRIBUTED/ FISH ECOLOGY	SESSION/ SYMPOSIUM
	Tony Miskiewicz		Kirsten Work	MODERATOR
136	Jessica Randall*, Morgan Busby, Adam Spear, Kathy Mier  Spatial and Temporal Variation of Summer Ichthyoplankton Assemblages in the Northeast Chukchi Sea 2010 - 2015	228	NIA - João Pedro Fontenelle*, Fernando Marques, Matthew Kolmann, Nathan Lovejoy  Molecular Phylogeny of the Neotropical Freshwater Sting-rays (Chondrichthyes: Myliobatiformes: Potamotrygonidae), with Biogeographical Inferences	8:00 AM
221	SLR - Sebastian Velez*, Jon Moore  Larval and Juvenile Population Dynamics of Families Lutjanidae and Serranidae in the Gulf of Mexico, with Respect to the Loop Current and other Hydrographic Features	547	NIA - Murilo Pastana*, Aléssio Datovo, Flávio Bockmann  Morphology of the cephalic laterosensory system of Characiformes (Teleostei: Ostariophysi) with comments on its phylogenetic implications	8:15 AM
726	SLR - Angie Hoover*, Luciano Chiaverano, Alison Deary, Frank Hernandez  Spatial Variation in Larval Gulf Menhaden ( <i>Brevoortia patronus</i> ) Growth and Condition During a High Freshwater Discharge Event	740	NIA - Kimberly Foster*, Devin D. Bloom  Molecular Phylogenetics and Diversification of South American Darters (Characiformes: Crenuchidae)	8:30 AM
803	Noelle Bowlin*, Andrew Thompson, William Watson, Philip Hastings  Ontogenetic Vertical Distribution of Mesopelagic Fishes and the Development of Diel Migration	296	Roberto Reis*, Edson Pereira, Mario de Pinna, Alexandre Clistenes  An Enigmatic New Hypoptopomatinae Catfish from a Relictual Area in Northeastern Brazil	8:45 AM
489	Lauren E. Carter*, David E. Richardson, Kiersten L. Curti  Development of a Population Wide Index of Spawning Stock Biomass for Atlantic Mackerel	829	Bárbara Calegari*, Alberto Akama, Richard Vari, Carl Ferraris  Systematics of Trachelyichthys: Exploring Biodiversity	9:00 AM
		326	Kirsten Work*  From Snapper to Darters: Video Surveys of 26 Florida Springs	9:15 AM
<b>BREAK - Rio Grande Hall</b>				9:30 AM
	LFC CONTRIBUTED II/ NUTRITION		SSAR SEIBERT SYSTEMATICS & EVOLUTION	SESSION/ SYMPOSIUM
	Kenneth Webb		Dan Rabosky	MODERATOR
247	Myron Peck*, Catriona Clemmesen, Marc Hufnagl, Björn Illing, Paul Kotterba, Marta Moyano, Matthias Paulsen, Patrick Polte  Bottom-up and Top-down Processes Impacting Early Life Stages of Herring ( <i>Clupea harengus</i> ) in the Southwest Baltic: A Synthesis of Recent Laboratory, Field and Modelling Studies	770	Umilaela Arifin*, Stefan Hertwig, Eric Smith, Djoko Iskandar, Alexander Haas  The Phylogenetic Systematics and Diversity of the Asian Frog Genus <i>Huia</i> Yang 1991 (Amphibia: Ranidae) Revisited	10:00 AM
173	Hubert Keckeis*  Larval Recruitment in a Large River: the role of time, habitat structure and individual constraints	684	Thomas Marshall*, Carlos Baca, Decio Correa, Michael Forstner, Dittmar Hahn, David Rodriguez  Population Genomics of Amphibian Chytrid in Central and East Texas	10:15 AM
764	Ione Hunt von Herbing*, Wren Busby, Mike Anderson  Our Inner Oceans: Understanding the origins of the gut microbiome and how probiotics may help maintain health in early stages of fishes under chronic stress	756	Shannon Keating*, Todd Jackman  Assessment of a Gene Capture Method in Resolving the Diplodactylidae Phylogeny	10:30 AM
775	SLR - Wren Busby*, Ione Hunt von Herbing  Multi-strain Probiotic Effects on Growth, Mortality, Food Conversion Ratios (FCRs), and Behavior in Red drum ( <i>Sciaenops ocellatus</i> )	748	Jonathan DeBoer*, Aaron Bauer  Non-adaptive Radiations in New Caledonian Geckos	10:45 AM
25	Jian WANG*, Wen-Xiong WANG  Understanding the role of rotifer in micro-element nutrition to marine fish larvae	240	Caroline Dong*, Claire McLean, Adnan Moussalli, Devi Stuart-Fox  Asymmetrical Introgression of Throat Coloration Across a Contact Zone of Australian Agamids	11:00 AM
2	Lee A. Fuiman*  Nutritional Programming in Red Drum: The Ecological Context	226	John Cavagnaro*  UV coloration in diurnal geckos of the genus <i>Lygodactylus</i> : influence of habitat and visual system on color evolution	11:15 AM
713	Ken Webb*, Lee Fuiman  Tissue DHA Content of Red Drum ( <i>Sciaenops ocellatus</i> ) Larvae is Affected by Factors Other than Maternal Egg DHA Concentration	217	Alexander Krohn*, Eveline Diepeveen, Ke Bi, Erica Rosenblum  Local Adaptation Does Not Lead to Genome-Wide Differentiation in Lava Flow Lizards	11:30 AM
219	SLR - Corinne Burns*, Lee Fuiman  What Your Momma Gave You: Importance of Maternally Invested Nutrients for Larval Performance of Southern Flounder			11:45 AM
<b>LUNCH ON YOUR OWN</b>				12:00 PM

SLR= Sally L. Richardson Best Student Paper

\* denotes presenter

NIA = NIA Best Student Paper

# Oral Presentations - Friday, 14 July - Afternoon

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		LIGHTNING TALKS II		ASIH STOYE GENETICS, DEVELOPMENT, & MORPHOLOGY II
MODERATOR		Dustin Siegel & Stan Trauth		Nancy Brown-Peterson
1:30 PM		<b>431 Reiland-Smith;</b> <b>314 Morgan;</b> <b>378 Davis;</b> <b>31 Trauth;</b> <b>316 Muths;</b> <b>285 Platenberg;</b> <b>917 Pinte;</b> <b>399 Claunch;</b> <b>769 Brocka;</b> <b>710 Francis;</b> <b>665 Willson;</b> <b>411 Badhon;</b> <b>27 Siegel;</b> <b>329 Delisle;</b> <b>313 Carlson;</b> <b>589 Carter;</b> <b>744 Hundt;</b> <b>887 Koo;</b> <b>488 Curtis;</b> <b>493 Crowe-Riddell;</b> <b>845 McCall;</b> <b>797 Blais;</b> <b>151 Doan</b>	793	<b>Kristen A. Dahl*, William F. Patterson, III, David S. Portnoy, J. Derek Hogan, Alison Robertson, Alice Ortmann</b>  DNA Barcoding and Microsatellite Genotyping Confirm Cannibalism in Northern Gulf of Mexico Invasive Lionfish, <i>Pterois volitans</i>
1:45 PM			50	<b>Amy Brower*, Alexis Janosik</b>  Using environmental DNA to detect lionfish in estuarine habitats of the Northern Gulf Coast
2:00 PM			430	<b>Kirill Vinnikov*, Kathleen Cole</b>  Exon Capture Sequencing of Amphidromous Gobies from the Genus <i>Stenogobius</i> (Teleostei: Gobiiformes)
2:15 PM			519	<b>Erika Krahl*, Aaron Schrey, Jingou Tong, Edward Heist</b>  Differentiating Between Invasive and Native Populations of Bighead and Silver Carp Using MS-AFLP
2:30 PM			613	<b>Nadya Mamoozadeh*, Jan McDowell, John Graves</b>  An Assessment of Genetic Population Structure for Striped Marlin ( <i>Kajikia audax</i> ) in the Pacific and Indian Oceans Using Genome-wide SNPs
2:45 PM			855	<b>Scott Buchanan*, Jason Kolbe, Johanna Wegener, Jess Atutubo, Nancy Karraker</b>  Comparing the Population Genetic Structure of Eastern Painted Turtles ( <i>Chrysemys p. picta</i> ) and Spotted Turtles ( <i>Clemmys guttata</i> ) in Rhode Island
3:00 PM			612	<b>Pedro P. Rizzato*, Anna Pospíšilová, Flávio A. Bockmann, Eric J. Hilton</b>  Ontogeny and homology of dermal bones associated with the laterosensory canal system in the skull of Polypteridae (Cladistii: Polypteriformes)
3:15 PM			614	<b>Katherine Bemis*, James Tyler, William Bemis, Eric Hilton</b>  Comparative Anatomy of the Dentition of Molidae (Ocean Sunfishes) and Diodontidae (Porcupinefishes): New Insights from Ontogeny and Patterns of Tooth Replacement
3:30 PM			156	<b>Kole Kubicek*, Ralf Britz, Kevin Conway</b>  Ontogeny of the Pectoral Spine in Siluroid and Loricarioid Catfishes
3:45 PM			686	<b>Jessica Maxfield*, Kathleen Cole</b>  Shifting From Egg to Sperm Production in Bisexual Fishes: What Does an Ovotestis Have to do?
4:00 PM		POSTER SESSION I Rio Grande Hall		
5:00 PM		POSTER SESSION I Rio Grande Hall		
6:00 PM				

\* denotes presenter

# Oral Presentations - Friday, 14 July - Afternoon

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	AES TROPIC ECOLOGY/PHYSIOLOGY		REPTILE BEHAVIOR/HERP ECOLOGY III	SESSION/ SYMPOSIUM
	Carl Luer		Gregory Pauly	MODERATOR
369	<b>Austin Gallagher*, Rachel Skubel, Heidi Pethybridge, Neil Hammerschlag</b>  Measuring the Energetic and Nutritional Status of Large, Migratory Sharks: Implications for Studies on Movement, Diet, and Reproduction	508	<b>Rulon Clark*, Malachi Whitford, Grace Freymiller, Tim Higham</b>  Leaps and Bounds: High Speed Predator-Prey Interactions Between Sidewinder Rattlesnakes and Desert Kangaroo Rats	1:30 PM
635	<b>Kaitlyn A. Manishin*, Kenneth J. Goldman, Margaret Short, Curry J. Cunningham, Peter Westley, Andrew C. Seitz</b>  Estimates of annual salmon shark consumption	637	<b>Andrew Jesper*, Scott Eckert</b>  A 3D Approach to the Analysis of Movement Patterns and Homorange Estimation for the Timber Rattlesnake ( <i>Crotalus horridus</i> ) in Central Illinois	1:45 PM
819	<b>Steven Kessel*, Joanne Fraser, William Van Bonn, Jill Brooks, Tristan Guttridge, Nigel Hussey, Samuel Gruber</b>  Transcoelomic expulsion of an ingested foreign object by a carcharhinid shark	821	<b>Rocky Parker*, Sydney Ashton, Shannon Richard</b>  Inhibition of Snake Courtship Behavior via Heterospecific Odor	2:00 PM
421	<b>Brendan Talwar*, Ian Bouyoucos, Jake Brownscombe, Cory Suski, Steven Cooke, John Mandelman, Edward Brooks</b>  Comparative behavioral and physiological response to longline capture	543	<b>Connor Adams*, Timothy Garrett, Toby Hibbitts, Wade Ryberg, Tyler Campbell</b>  Home Range and Movements of the Reticulate Collared Lizard ( <i>Crotaphytus reticulatus</i> ) in South Texas	2:15 PM
375	<b>Sebastian Pardo*, Nicholas Dulvy</b>  Body mass, temperature, and depth independently shape productivity in sharks and rays	150	<b>Troy Baird*, Joshua York</b>  Sexual Selection on Male Collared Lizard Broadcast Display Behavior Enhances Offspring Survivorship	2:30 PM
469	<b>Cathy Walsh, Jess Restivo, Timothy Polk, Hannah Reid, Carl Luer*</b>  Preliminary Studies to Transform Elasmobranch Immune Cells into a Continuous Cell Line	810	<b>Gregory Pauly*</b>  Citizen Science is Transforming the Study of Squamate Mating Behavior: An Example from Alligator Lizards ( <i>Elgaria</i> )	2:45 PM
478	<b>Danielle Ingle, Lisa Natanson, Marianne Porter*</b>  Mechanical properties of vertebral cartilage at biologically relevant strains	250	<b>Mark Merchant*, Dusty Savage, Amos Cooper, Chris Murray</b>  Nest Maintenance and Defense Regimens of the American Alligator ( <i>Alligator mississippiensis</i> )	3:00 PM
		501	<b>Richard Orton*, Lance McBrayer</b>  Predation Alters Local Adaptation and Sexual Dichromatism	3:15 PM
		166	<b>Steven Salinas*, Tristen Ortega, Jesús Rivas</b>  Control of Northeastern New Mexico Rivers: American Bullfrogs ( <i>Lithobates catesbeianus</i> ) vs. Northern Crayfish ( <i>Orconectes virilis</i> ) vs. Rainbow Trout ( <i>Oncorhynchus mykiss</i> )	3:30 PM
		234	<b>Adam Rosenblatt*</b>  What Happens to Black Caiman ( <i>Melanosuchus niger</i> ) When Their Prey Disappear?	3:45 PM
<b>POSTER SESSION I</b> <b>Rio Grande Hall</b>				4:00 PM
<b>POSTER SESSION I</b> <b>Rio Grande Hall</b>				5:00 PM
				* denotes presenter



# Oral Presentations - Friday, 14 July - Afternoon

ROOM		<i>Salon/Ballroom A</i>		<i>San Antonio</i>
SESSION/ SYMPOSIUM		<b>SSAR SEIBERT CONSERVATION</b>		<b>HL GRADUATE RESEARCH AWARD/ AMPHIBIAN BEHAVIOR/TURTLE BEHAVIOR</b>
MODERATOR		<b>Ralph Saporito</b>		<b>David Green</b>
1:30 PM	487	<p style="text-align: center;"><b>Chelsea Kross*, JD Willson</b></p> <p style="text-align: center;">Effects of non-native vegetation on larval development of a prairie specialist, the Crawfish Frog (<i>Lithobates areolatus</i>)</p>	270	<p style="text-align: center;"><b>HL - Cody Godwin*, Jeremiah Doody, Brian Crother</b></p> <p style="text-align: center;">Assessment of ATV Impacts on Softshell Turtle Nests</p>
1:45 PM	440	<p style="text-align: center;"><b>Richard Kim*, Brian Halstead, Eric Routman, Michael Casazza, Julie Andersen</b></p> <p style="text-align: center;">Predator-prey Interactions Between the Endangered San Francisco Gartersnake and the Invasive American Bullfrog Predict the Utility of Invasive Species Removal</p>	220	<p style="text-align: center;"><b>HL - Andrew MacLaren*, Shawn McCracken, Michael Forstner</b></p> <p style="text-align: center;">Automated Detection of the Endangered Houston Toad's (<i>Bufo</i> [=<i>Anaxyrus</i>] <i>houstonensis</i>) Vocalization</p>
2:00 PM	78	<p style="text-align: center;"><b>Ariel Kruger*, Peter Morin</b></p> <p style="text-align: center;">Green Frogs Harbor Microbes that Inhibit <i>Batrachochytrium dendrobatidis</i>, a Deadly Fungal Pathogen</p>	728	<p style="text-align: center;"><b>HL - Shashwat Sirsi*, Andrew R. MacLaren, Daniel H. Foley III, Michael R.J. Forstner</b></p> <p style="text-align: center;">Comparing movement patterns and consequent management implications derived from Capture-Mark-Recapture, Telemetry, and Genetic Frameworks for the Rio Grande Cooter (<i>Pseudemys gorzugi</i>)</p>
2:15 PM	473	<p style="text-align: center;"><b>Emily Karwacki, Matthew Atkinson*, Anna Savage</b></p> <p style="text-align: center;">A novel quantitative PCR assay specific for the emerging amphibian pathogen <i>Dermomycooides</i> spp. reveals widespread infection in larval anurans</p>	336	<p style="text-align: center;"><b>HL - Decio Correa*, Mathew Leibold</b></p> <p style="text-align: center;">Unraveling the Role of Evolutionary History on Skin and Gut Microbial Communities of Anuran Amphibians</p>
2:30 PM	304	<p style="text-align: center;"><b>Cory Goff*, Caitlin Gabor, Susan Walls</b></p> <p style="text-align: center;">Core vs. Periphery: Linking Amphibian Declines to Habitat Quality and Increased Stress</p>	8	<p style="text-align: center;"><b>David Green*</b></p> <p style="text-align: center;">Size-Assortative Mating in Anuran Amphibians: Assessing the Evidence</p>
2:45 PM	486	<p style="text-align: center;"><b>Meghan Parsley*</b></p> <p style="text-align: center;">Adaptive Variation in Tiger Salamander Populations</p>	909	<p style="text-align: center;"><b>Meghan Still*, Amanda Lea, Hans Hofmann, Michael Ryan</b></p> <p style="text-align: center;">The Role of Chemical Cues during Courtship in Túngara Frogs, <i>Physalaemus pustulosus</i></p>
3:00 PM	477	<p style="text-align: center;"><b>Matthew Metcalf*, Edwin M. Everham III, John Herman</b></p> <p style="text-align: center;">Landscape Ecology of Eastern Indigo Snakes (<i>Drymarchon couperi</i>) in Southwest Florida</p>	321	<p style="text-align: center;"><b>Laura Springer*, Cory Adams, Toby Hibbitts, Matt Kwiatkowski, Dan Saenz</b></p> <p style="text-align: center;">Home Range and Activity Patterns in the Southern Crawfish Frog</p>
3:15 PM	391	<p style="text-align: center;"><b>Danielle Bradke*, Eric Hileman, Jeffrey Bartman, Nathan Kudla, Lisa Faust, Jennifer Moore</b></p> <p style="text-align: center;">Effective Versus Census Population Size for a Threatened Pitviper (<i>Sistrurus catenatus</i>) in Southwest Michigan</p>	714	<p style="text-align: center;"><b>Richard C. Vogt*, Camila R. Ferrara</b></p> <p style="text-align: center;">Underwater Vocalizations in Freshwater Turtles and Seaturtles may be used for Management and Documenting Presence and Abundance Data</p>
3:30 PM	832	<p style="text-align: center;"><b>Rhett M. Rautsaw*, Scott A. Martin, Bridget A. Vincent, Katelyn Lanctot, M. Rebecca Bolt, Richard A. Seigel, Christopher L. Parkinson</b></p> <p style="text-align: center;">Stopped dead in their tracks: The impact of railways on Testudine movement and behavior</p>	65	<p style="text-align: center;"><b>Brad Carlson*</b></p> <p style="text-align: center;">The Ecology of Personality in Box Turtles</p>
3:45 PM	831	<p style="text-align: center;"><b>Daniel Martin*, Larissa Bailey, Cameron Aldridge, Robert Reed, Daniel Manier</b></p> <p style="text-align: center;">A Comparison of Species Distribution and Occupancy Models for Informing Reptile Conservation</p>		
4:00 PM	<b>POSTER SESSION I</b> <b>Rio Grande Hall</b>			
5:00 PM				
6:00 PM				

\* denotes presenter

HL = HL Graduate Research Award

# Oral Presentations - Friday, 14 July - Afternoon

	<i>Pecos</i>		<i>San Marcos</i>	ROOM
	LFC	MULTI-STRESSOR EFFECTS	SSAR SEIBERT PHYSIOLOGY & MORPHOLOGY	SESSION/ SYMPOSIUM
	Hannes Baumann/ Marta Moyano		Mary White	MODERATOR
	Introduction: Multi-Stressor Effects		184	John Stepanek*, Natalie Claunch, Julius Frazier, Ignacio Moore, Ben Vernasco, Camilo Escallón, Emily Taylor  Corticosterone-Induced Color Change in Southern Pacific Rattlesnakes ( <i>Crotalus helleri</i> )
380	Werner Ekau*, Simon Geist  Climate change impacting recruitment in upwelling areas: Can we save the small pelagics' stocks from extinction?		34	Jessica L. Tingle*, Timothy E. Higham  Morphological Correlates of Locomotor Specialization in Vipers
292	Louise Cominassi*, Marta Moyano, Guy Claireaux, Patcik Quazuguel, Sarah Howald, Felix Christopher Mark, José-Luis Zambonino, Myron Peck  Combined Effects of Ocean Acidification and Warming on the Swimming Capacity of European Sea Bass Larvae		429	Rebecca Jasulevicz*, Aaron Bauer  Morphological Diversification of the Pectoral Girdle and Associated Structures within Gekkota
393	Christopher Murray*, Jacob Snyder, Hannes Baumann  A Multi-Factorial Evaluation of Temperature Dependent CO <sub>2</sub> -Effects in a Coastal Forage Fish		229	Daniel F. Hughes*, Paul M. Gignac, Eli Greenbaum, Arshad M. Khan  Elucidating the Cranial Diversity of Chamaeleonidae by Incorporating Validated Field-Based Brain Tissue Preservation Methods into Multi-Scale Structural Analyses
259	Janet Nye, Hannes Baumann, SLR - Teresa Schwemmer*  Physiological Effects of Increased Temperature and Carbon Dioxide on Atlantic Silverside Early Life Stages		444	Logan Fehrenbach*, Christopher R. Tracy  Physiological differences of two closely related skink species, <i>Plestiodon skiltonianus</i> and <i>Plestiodon gilberti</i> , that differ in habitat aridity
109	Jacob Snyder*, Christopher Murray, Hannes Baumann  Maternal effects on offspring CO <sub>2</sub> sensitivity in a coastal marine fish		510	Ariana Rupp*, David Sever  Junk in the Trunk: Caudal Courtship Glands Present in Plethodontid Salamanders Without Mental Glands
633	SLR - Andria K. Salas*, Preston S. Wilson, Megan S. Ballard, Andrew H. Altieri, Timothy H. Keitt  The Role of Intermittent, Short-range Acoustic Cues on Larval Fish Settlement		553	Mariah Cardoza*, Michael Wines, Jennifer Deitloff  Effect of Silver Nanoparticles on Larval <i>Ambystoma mexicanum</i>
	Discussion: Multi-Stressor			3:15 PM
				3:30 PM
				3:45 PM
POSTER SESSION I Rio Grande Hall				4:00 PM
				5:00 PM
				6:00 PM

\* denotes presenter

# Oral Presentations - Saturday, 15 July - Morning

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		<b>HL/SSAR/ASIH SYMPOSIUM THE SCIENCE, MANAGEMENT, AND POLICY OF AMPHIBIAN CONSERVATION</b>		<b>FISH GENETICS/AMPHIBIAN CONSERVATION</b>
MODERATOR		<b>Julia Earl</b>		<b>Trevor Krabbenhoft</b>
8:00 AM	241	<b>Whit Gibbons*</b>	878	<b>Jan McDowell*, Hamish Small</b> Genetic assessment of the population structure of Tautog, Tautoga onitis
8:15 AM		Ray Semlitsch: A Brief History of a Visionary in Amphibian Ecology	343	<b>Kayla Anatone*, Barry Chernoff, Michelle Kraczkowski, Abrial Meyer, Chloe Nash</b> Barriers to Gene Flow for Two Species of Dace (Rhynchichthys) in Three Connecticut Streams
8:30 AM	669	<b>Freya Rowland*, Raymond Semlitsch</b>  The Ecological Role of Pond-Breeding Amphibians	586	<b>Trevor Krabbenhoft*, Daniel Yule, Gerald Smith, Wendylee Stott, Thomas Dowling</b>  Transcriptomics Identifies Genes Associated with Phenotypic Differences among Great Lakes Ciscoes (Coregonus spp.)
8:45 AM	315	<b>Keith Berven*</b>  Patterns and Trends in the Population Dynamics of Wood Frogs Based on a 33-year Study in Southeastern Michigan	278	<b>S. Elizabeth Alter*, Fernando Alda, Matthew Aardema, Prosanta Chakrabarty, Melanie Stiassny</b>  How did the cichlid lose its sight? Comparative genomics and phylogenetics of the riverine lamprologines (Cichlidae, Lamprologini)
9:00 AM	522	<b>Howard Whiteman*, Alycia Lackey, Michael Moore, Jacqueline Doyle, Nicole Gerlanc, Ashley Hagan</b>  Understanding the Evolution of Alternative Life Histories Using Long-term Population Monitoring	135	<b>Muhammad Rais*, Ayesha Akram, Muhammad Saeed, Sadia Munir, Saleha Abbassi, Tariq Mahmood, Maqsood Anwar</b>  Anuran Assemblage and Identification of Sites for Population Monitoring in Sub-tropical Scrub and Pine Forest, Rawalpindi and Islamabad Capital Territory, Pakistan
9:15 AM	1	<b>Marty Crump*</b>  Life Histories and Conservation of Anurans in the New World Tropics	117	<b>Kyle O'Connell*, Eric Smith, Matthew Fujita</b>  Species delimitation of North American whipsnakes and the effects of missing SNP data on phylogenetic analyses
9:30 AM	<b>BREAK - Rio Grande Hall</b>			
SESSION/ SYMPOSIUM		<b>HL/SSAR/ASIH SYMPOSIUM THE SCIENCE, MANAGEMENT, AND POLICY OF AMPHIBIAN CONSERVATION</b>		<b>FISH BIOGEOGRAPHY &amp; MORPHOLOGY</b>
MODERATOR		<b>Michelle Boone</b>		<b>Chris Kenaley</b>
10:00 AM	737	<b>Joseph Pechmann*, David Scott, Brian Metts, Erin Cork, Stacey Lance</b>  Shifts in the Salamander Community Over 36 Years at an Isolated Wetland: Has Climate Change Altered Wetland Habitat and Hydroperiod?	56	<b>Hyo Jae Yu*, Jin-Koo Kim</b>  Clarifying the Effects of a Sister Species and Dispersal of Ichthyoplankton on the Population Genetic Structure of Goldeye Rockfish, Sebastes thompsoni (Pisces, Sebastidae)
10:15 AM	98	<b>Winsor Lowe*</b>  A grounded approach to dispersal research	915	<b>D Ross Robertson*, Luke Tornabene, Carole C Baldwin</b>  What do different databases indicate about Caribbean fish depth-ranges
10:30 AM	454	<b>David Skelly*</b>  Evolution in the Shade: the Microgeography of Thermal Adaptation in the Wood Frog	492	<b>Hannah Owens*</b>  Seeing the Invisible: Biogeographic Breaks in Circumtropical Billfishes (Istiophoridae and Xiphiidae)
10:45 AM	123	<b>William Peterman*, Rio Schondelmeyer</b>  The Role of Genetic Diversity and Stress on Growth and Survival in Wood Frogs	244	<b>Peter Unmack*, Mark Adams, Christine Thacker</b>  Hemi-clonal unisexual carp gudgeons (Eleotridae: Hypseleotris): systematic clarification of species boundaries and various hybrid lineages in southeastern Australia
11:00 AM	307	<b>Elizabeth Harper*, David Patrick, James Gibbs</b>  Forestry Practices and the Dynamics of Amphibian Populations at the Landscape Scale: Modeling the LEAP Datasets	91	<b>Daniel E. Figueroa*, Mauro Belleggia, Santiago Barbini, David Sabadín, Lorena Scenna, Melisa Chierichetti, Martin Roman</b>  The Young Argentine Sea, Its Ichthyofaunistic Colonization And Its Traumatic Evolution
11:15 AM	387	<b>Melissa Youngquist*, Michelle Boone</b>  Understanding species distributions: the effects of landscape composition, configuration, and scale	597	<b>Nathan Lujan*, Mark Sabaj, Leandro Sousa, Marcella Santos, Lúcia Rapp Py-Daniel, John Lundberg, Brice Noonan</b>  Comparative population genomics of seven fish taxa spanning rapids of the lower Xingu River, Amazon Basin, Brazil
11:30 AM	71	<b>Thomas Anderson*, Brittany Ousterhout, William Peterman, Jacob Burkhart, Freya Rowland, Dana Drake, Lori Eggert, Ray Semlitsch</b>  Comparative insights on spatiotemporal dynamics of co-occurring ambystomatid salamanders	896	<b>Michael Pauers*, Cassandra Turinske</b>  Patterns of morphological divergence in the Orangespotted sunfish, Lepomis humilis, in Wisconsin and throughout the United States
11:45 AM	28	<b>Julia E. Earl*</b>  Effects of Global Change on Amphibian Biomass Export from Ponds: a Meta-analysis of Mesocosm Studies	690	<b>Kassandra Ford*, James Albert</b>  The long and short of it: Patterns of snout differentiation in four species of mormyrid electric fishes (Osteoglossiformes: Mormyridae)
12:00 PM	<b>LUNCH ON YOUR OWN</b>			

\* denotes presenter

# Oral Presentations - Saturday, 15 July - Morning

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	<b>AES SYMPOSIUM APPLICATIONS OF PHYSIOLOGICAL ECOLOGY</b>		<b>TEXAS AND MEXICAN BLINDCATS/DESERT FISHES</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Christine Bedore</b>		<b>John Lundberg</b>	<b>MODERATOR</b>
462	<b>Christine Bedore*, Kady Lyons</b>			<b>8:00 AM</b>
	Applications of Physiological Ecology in Elasmobranch Research	266	<b>John G. Lundberg, Dean A. Hendrickson, Kyle Luckenbill, Mariangeles Arce-H.*</b> Satan's Skeleton Revealed	<b>8:15 AM</b>
806	<b>Dovi Kacev*, Lisa M Komoroske, Shannon Corrigan, Christine N Bedore, Kady Lyons, Andrew R Thompson</b>	733	<b>Laura E. Dugan*, Dean A. Hendrickson, Antonio Hernández-Espriú, Gary P. Garrett, Adam E. Cohen, Brad Wolaver, Ryan Smith</b> Conservation status assessment of the endangered Mexican blindcat, <i>Prietella phreatophila</i>	<b>8:30 AM</b>
298	<b>Kady Lyons*, Dovi Kacev, David Gillett, Antonella Preti, Heidi Dewar, Suzanne Kohin</b>	301	<b>Dean A. Hendrickson*, Antonio Hernández-Espriú, Laura Dugan, Peter Sprouse, José Antonio Dávila Paulín, Jean Krejca, Andrew Gluesenkamp, James Reddell, Ryan Smith, Sarah Howard, Jack Johnson, Gary P. Garrett, Adam E. Cohen, Francisco J. García De León, Brad Wolaver, Dante B. Fenolio</b> Discovery of Endangered Mexican Blindcat, <i>Prietella phreatophila</i> , in Texas: Implications for International Groundwater Management and Evolution of the Regional Karst Aquifer Biota	<b>8:45 AM</b>
	Using Organochlorine Contaminants as a Tool to Examine Ecological Physiology in Three Species of Pelagic Sharks	491	<b>Gary Garrett*, Megan Bean, Robert Edwards, Dean Hendrickson</b> Declines and losses of spring/ciénega ecosystems in the Chihuahuan Desert of Texas	<b>9:00 AM</b>
683	<b>G - Johanna Imhoff*, Dean Grubbs</b>	877	<b>Kevin W. Conway*, Megan Osborne, Megan Bean, David Portnoy</b> The plight of the Rio Grande Shiner, <i>Notropis jemezianus</i> , in the lower Rio Grande along the Texas/Mexico border	<b>9:15 AM</b>
<b>BREAK - Rio Grande Hall</b>				<b>9:30 AM</b>
	<b>AES SYMPOSIUM APPLICATIONS OF PHYSIOLOGICAL ECOLOGY</b>		<b>LIZARD CONSERVATION &amp; LIFE HISTORY</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Christine Bedore</b>		<b>Michael Westphal</b>	<b>MODERATOR</b>
352	<b>G - James Anderson*</b>	720	<b>Dean Williams*, Amanda Hale, Ashley Wall, Daniella Biffi</b> Conservation genetics of Texas horned lizards ( <i>Phrynosoma cornutum</i> )	<b>10:00 AM</b>
	Navigation By Magnetic Field Information In Elasmobranch Fishes - How Environment Shapes Functionality And Capability	193	<b>Ashley Grimsley*, Daniel Leavitt, Michael Ingraldi</b> Flat-tailed Horned Lizard ( <i>Phrynosoma mcallii</i> ) Population Viability Analysis in the Yuma Desert of Arizona	<b>10:15 AM</b>
530	<b>Eloise Cave*, Stephen Kajiura</b>	455	<b>Robert E. Lovich*, Daniel J. Leavitt</b> Celebrating 20 Years of Conservation: Flat-tailed Horned Lizard ( <i>Phrynosoma mcallii</i> ) Rangelwide Management Strategy	<b>10:30 AM</b>
780	<b>Christine Bedore*</b>	604	<b>Michael Westphal*, Alex Filazzola, Amanda Liczner, Taylor Noble, Deborah Woolett-Smith, Christopher Lortie</b> Nonrandom association of blunt-nosed leopard lizards ( <i>Gambusia sila</i> ) with California jointfir ( <i>Ephedra californica</i> ) in a high-elevation refugium	<b>10:45 AM</b>
348	<b>Theresa Gunn*, Christine Bedore</b>	616	<b>Brenna A. Levine*, Marlis R. Douglas, Whitney J. B. Anthony, Casey Brewster, Hayden D. Elliot, Michael E. Douglas</b> Contemporary Population Connectivity of the Eastern Collared Lizard ( <i>Crotaphytus collaris collaris</i> ) in Arkansas	<b>11:00 AM</b>
841	<b>Christopher Mull*, Kara Yopak, Nicholas Dulvy</b>	636	<b>Travis LaDuc*, Brad Wolaver, Ben Labay, Jon Paul Pierre, C. Michael Duran, Toby Hibbitts, Wade Ryberg, Ian Wright, Matt Fujita, Corey Roelke</b> Unraveling the Natural History of the Enigmatic Spot-tailed Earless Lizard ( <i>Holbrookia lacerata</i> ) through Collaborative Research	<b>11:15 AM</b>
	Can you spare some brain: how life history and ecology have shaped brain size evolution in sharks and rays	698	<b>Bryan Falk*, Emma Hanslowe, Amy Yackel Adams, Robert Reed</b> Working Towards Improved Management of Invasive Black and White Tegus ( <i>Salvator merianae</i> )	<b>11:30 AM</b>
279	<b>Ashley Shaw*, Doug Adams, Amanda Barker, Chris Bedore, Jim Gelsleichter, David Portnoy, Eric Reyier, Bryan Frazier</b>	204	<b>Jill Heaton*, Kirsten Dutcher</b> Natural History and Ecology of Two Endemic Namibian Girdled Lizards: <i>Namazonurus pustulatus</i> and <i>Karusasaurus jordani</i>	<b>11:45 AM</b>
<b>LUNCH ON YOUR OWN</b>				<b>12:00 PM</b>

\* denotes presenter

# Oral Presentations - Saturday, 15 July - Morning

	<i>Salon/Ballroom A</i>		<i>San Antonio</i>	ROOM
	<b>FISH BEHAVIOR/FISH LIFE HISTORY</b>			<b>SESSION/ SYMPOSIUM</b>
	<b>Terry Donaldson</b>			<b>MODERATOR</b>
<b>610</b>	<b>Paul James*, Gerard Closs</b> Spatial Segregation and Site Fidelity of the Canterbury Galaxias ( <i>Galaxias vulgaris</i> ) in a Small New Zealand Stream			<b>8:00 AM</b>
<b>448</b>	<b>Terry J. Donaldson*</b> Mating Systems of <i>Hemigymnus melapterus</i> and <i>Cheilodactylus inermis</i> (Labridae) on a Spawning Aggregation Site: Weird!			<b>8:15 AM</b>
<b>385</b>	<b>Nathaniel Zbasnik*, Steve Huskey</b> The Impact of Invasive Lionfish, <i>Pterois volitans</i> , on the Feeding Performance of Endemic Spotted Scorpionfish, <i>Scorpaena plumieri</i>			<b>8:30 AM</b>
<b>809</b>	<b>Bryan Keller*, Chip Cotton</b> Preliminary Ageing of Selected Deep Demersal Fishes from the Northern Gulf of Mexico			<b>8:45 AM</b>
<b>798</b>	<b>Rachel Grey*, Virginia Shervette, Joseph Ballenger, David Wyanski</b> Life History of Lionfish ( <i>Pterois</i> spp) in Invaded Range	<b>711</b>	<b>James Beach*</b> Supporting Biological Collections Informatics with Specify Software for the Long Run	<b>9:00 AM</b>
				<b>9:15 AM</b>
<b>BREAK - Rio Grande Hall</b>				<b>9:30 AM</b>
	<b>FISH REPRODUCTION &amp; DEVELOPMENT</b>		<b>AES CONSERVATION &amp; MANAGEMENT I</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Raelynn Deaton Haynes</b>		<b>Marcus Drymon</b>	<b>MODERATOR</b>
<b>468</b>	<b>Nancy J. Brown-Peterson*, Trevor Moncrief</b> Does Depth Influence Red Snapper Reproductive Biology Metrics?	<b>863</b>	<b>Cheston Peterson*, R. Dean Grubbs</b> A Selectivity Comparison of Gillnet and Longline Fishing Gear Composed of a Range of Mesh and Hook Sizes Using Data from Coastal Shark Survey	<b>10:00 AM</b>
<b>906</b>	<b>Robert Jacobson*</b> Stop Counting Eggs!: Using Computer Vision To Gather Data	<b>121</b>	<b>Marcus Drymon*, Steven Scyphers</b> Attitudes and Perceptions Influence Recreational Angler Support for Shark Conservation and Fisheries Sustainability	<b>10:15 AM</b>
<b>68</b>	<b>Gianluca Polgar*, Hans-Georg Rupp, Hieu Van Mai, Atsushi Ishimatsu</b> Observations on the Reproductive Cycle of the Mudskipper, <i>Periophthalmus variabilis</i> (Teleostei, Gobioidae) in Semi-natural Conditions	<b>26</b>	<b>David Shiffman*</b> Trends in Elasmobranch Research 1985-2016: Methodologies, Study Species, Conservation Framing, and Presenter Demographics	<b>10:30 AM</b>
<b>800</b>	<b>Miguel F. Arciria Correa, René A. Gulfo Ávila, Fredys F. Segura-Guevara, Angel L. Martínez-González, Glenys Tordecilla-Petro, Charles W. Olaya-Nieto*</b> Reproductive biology of <i>Morrúa Geophagus steindachneri</i> in the Ciénaga de Betancí, Sinu River System	<b>451</b>	<b>Jose I. Castro*</b> The Origins and Rise of Shark Biology in the 20th Century	<b>10:45 AM</b>
<b>786</b>	<b>Karen Crow*</b> There may be more to the Hox Code than you thought. The "Distal Phase" HoxA/D expression pattern is an ancient module that is deployed in a variety of novel features in fishes	<b>358</b>	<b>Catherine Macdonald*, Julia Wester</b> Media Coverage of Shark Attacks in Cape Town, South Africa, 1850-2000	<b>11:00 AM</b>
<b>580</b>	<b>Richard Feeney*, Milton Love, Taylor Sakmar, William Steinriede, Kaia Joye Moyer</b> Unusual occurrence of King-of-the-Salmon ( <i>Trachipterus altilis</i> ) juveniles near Santa Catalina Island, California, during the winter of 2013	<b>439</b>	<b>Sabine Wintner*, Sven Kerwath</b> Cold Fins, murky Waters and the Moon: What Affects Shark Catches in the Bather Protection Program of KwaZulu-Natal, South Africa?	<b>11:15 AM</b>
<b>213</b>	<b>Alora Yarbrough*, Karen Martin</b> Effects of Increased Air and Water Temperatures on the Embryonic Development of the California Grunion	<b>67</b>	<b>Pedro Ibañez, Mauro Belleggia*, Daniel E. Figueroa</b> Biological Aspects Of The Broadnose Skate <i>Bathyraja brachyurops</i> From The Argentinean Continental Shelf	<b>11:30 AM</b>
		<b>367</b>	<b>Matthew Scanlon*, Bryan Fluech, Christine Bedore</b> Evaluating elasmobranch interactions in the Georgia shrimp fishery	<b>11:45 AM</b>
<b>LUNCH ON YOUR OWN</b>				<b>12:00 PM</b>

# Oral Presentations - Saturday, 15 July - Morning

ROOM		<i>Pecos</i>		<i>San Marcos</i>	
SESSION/ SYMPOSIUM		LFC CONTRIBUTED III		HERP ENVIRONMENT	
MODERATOR		Hubert Keckeis		Michael Lannoo	
8:00 AM	897	Marianne Falardeau*, Caroline Bouchard, Dominique Robert, Louis Fortier  Invasion of the Canadian Arctic Archipelago by Pacific Sand Lance Detected by an Ichthyoplankton Survey	852	Arthur Barraza*, Lisa Komoroske, Camryn Allen, Varenka Lorenzi, Daniel Lawson, Jeffrey Seminoff, Tomoharu Eguchi, Robin LeRoux, Christopher Lowe  Comparing Persistent Organic Pollutants and Trace Metals In Green Sea Turtles (Chelonia mydas) Inhabiting Two Urbanized Habitats in Southern California	
8:15 AM	447	Cindy van Damme*, Niels Hintzen, Frank Kleissen, Loes Bolle, Matthias Kloppmann, Richard Nash  Improving Larvae Survey Indices: A case study of North Sea Herring	644	Katie Parson*, Kimberly Andrews, Terry Norton, Joseph Colbert  The Influence of Temperature Fluctuations and Habitats on the Surface Activity and Reproduction of Eastern Diamondback Rattlesnakes in Coastal Climates	
8:30 AM	599	Katrin Marancik*, David Richardson, Jeffrey Guyon, Molly Lutcavage, Benjamin Galuardi, Chi Hin Lam, Harvey Walsh, Sharon Wildes, Douglas Yates, Jonathan Hare  Discovery of a Slope Sea spawning ground for Atlantic bluefin tuna (Thunnus thynnus)	531	Mary-Ruth Low*, David Bickford, Sonja Luz  Spatial Ecology of the Reticulated Python in Singapore	
8:45 AM	35	Steven Porter*, Lorenzo Ciannelli  Contrasting Flathead Sole (Hippoglossoides elassodon) spawning in the southeastern Bering Sea during warm and cold periods	691	Brian Tornabene*, Andrew Blaustein, Cheryl Briggs, Jason Rohr, Jason Hoverman  Assessing the Influence of Spatial and Environmental Factors on Ranavirus Epidemiology in a California Amphibian Assemblage	
9:00 AM	157	W. Howard Brandenburg*, Darrel E. Snyder, Steven P. Platania  Guide to larval and early juvenile cyprinids of the middle and lower Pecos River (New Mexico and Texas)	674	Michael Lannoo*, Rochelle Stiles  Effects of Short-term Climate Variation on a Long-lived Frog	
9:15 AM	664	Nate Jacobson*, Kathy Koch, Chris Cieciek, Doug Bradley, Doug Dixon  Internet-Based Larval Fish and Egg Taxonomic Keys for North American Freshwater and Marine Fishes	103	Jay McGhee*  Use of PVC Pipe Refugia to Assess Summer Pond Use in Copey's Gray Treefrogs	
9:30 AM	<b>BREAK - Rio Grande Hall</b>				
SESSION/ SYMPOSIUM		LFC CONTRIBUTED IV		HERP PHYSIOLOGY	
MODERATOR		Hubert Keckeis		Jeffrey Goessling	
10:00 AM	839	Joel Hoffman*, Christy Meredith, Anett Trebitz, Greg Peterson, Julie Lietz, Chelsea Hatzenbuehler, Erik Pilgrim, Sara Okum, John Martinson  DNA Metabarcoding of Fish Larvae for Detection of Non-Native Fishes	885	Daniel Haro*, Katherine Holst, Gregory Pauly, Russell Burke, Heather Liwanag  Comparing thermal physiology between introduced, urban populations of the Italian Wall Lizard (Podarcis siculus) in New York and California	
10:15 AM	449	Tony Miskiewicz*  Comparative assessment of morphological and pigmentation characters during larval development of species of 10 genera of F. Gobiidae and two genera of F. Eleotridae	779	Joseph Agugliaro*, Ayham Khrais  Seasonal Changes in Metabolic Rate and Immune Function in the Rubber Boa (Charina bottae)	
10:30 AM			719	Tanner Harvey*, Stephen Mackessy  Prey specificity of Boiga irregularis venom toxins	
10:45 AM			105	Jeffrey Goessling*, Mary Mendonca  Effects of trapping on markers of acute stress in Gopher Tortoises, Gopherus polyphemus	
11:00 AM			499	Michael Finkler*, Jessica Filer  Physiological Consequences of Delayed Nest Emergence for Hatchling Snapping Turtles (Chelydra serpentina)	
11:15 AM			29	Anthony Gilbert*, Donald Miles  Natural Selection on Thermal Preference and Performance Over a Rapid Timescale	
11:30 AM			58	Alessandro Catenazzi*, Robin Warne  Rapid Acclimation of Critical Thermal Maximum in a Tropical Montane Frog	
11:45 AM					
12:00 PM	<b>LUNCH ON YOUR OWN</b>				

\* denotes presenter

# Oral Presentations - Saturday, 15 July - Afternoon

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		<b>HL/SSAR/ASIH SYMPOSIUM THE SCIENCE, MANAGEMENT, AND POLICY OF AMPHIBIAN CONSERVATION</b>		<b>FISH MORPHOLOGY/ FISH SYSTEMATICS</b>
MODERATOR		<b>Freya Rowland/ Katie O'Donnell</b>		<b>Kevin Conway</b>
1:30 PM	914	<b>Tracy Rittenhouse*, Susan Walls, Katie Beiffuss, Rochelle Renken</b> Questions that Matter: Conducting Research that Managers Will Use	565	<b>Christopher Martinez*, Matthew McGee, Peter Wainwright</b> Evolution of Feeding Kinesis in African Cichlids
1:45 PM	171	<b>Katherine O'Donnell*, Susan Walls</b> Bridging the research-management gap: Effective conservation decisions for flatwoods salamanders through adaptive management	230	<b>Iliana Mock*, Kevin Conway</b> An Investigation of Oral Keratinization in North American Minnows (Teleostei: Cyprinidae)
2:00 PM	680	<b>Jarrett Johnson*</b> The Management Implications of Gene Flow Across Species Boundaries	481	<b>Allison Bronson*, Henry Towbin</b> Critical point drying improves contrast for CT scanning of soft tissue
2:15 PM	24	<b>Ariadne Angulo*, Phillip J Bishop</b> Providing a Global Framework for Translating Amphibian Research into Conservation Action	260	<b>M.Laura Habegger*, Philip Motta, Dave Johnson</b> An osteological description of the rostrum in billfishes (Xiphiidae and Istiophoridae)
2:30 PM	218	<b>Raymond Semlitsch, Susan Walls*, Jamie Barichivich, Katherine O'Donnell</b> A Comprehensive Multi-level Approach to Preventing Amphibian Extinction	422	<b>Matthew Kolmann, Adam Summers*</b> It's a hard-knock life - lepidophagy, armor, and injury in piranhas and their allies
2:45 PM	750	<b>Priya Nanjappa*</b> Science and the Real World: How Ray's Conservation Legacy has Influenced Management and Policy	15	<b>Dominique Adriaens*, Jens De Meyer, Mathias Bouilliart, Joachim Christiaens, Claude Belpaire, Sam Van Wassenbergh, Anthony Herrel, Jonna Tomkiewicz, Peter Lauesen, Gregory Maes, Ron Dirks, Pascal Boeckx, Lieven Bervoets, Adrian Covaci, Govindan Malarvannan, Akihiro Okamura, Jelle Dhaene, Luc Van Hoorebeke, Barbara De Kege!</b> European Eels....the Story of their (tough) Life
3:00 PM	158	<b>James Collins*</b> Amphibians in the 21st Century: The Challenge of Integrating Discovery and Loss, Conservation and Husbandry	388	<b>Stuart Welsh*, Dean Jerry, Damien Burrows, Meaghan Rourke</b> A New Species of Eel-tailed Catfish from New South Wales, Australia
3:15 PM			264	<b>Eric Hilton*, Ann Matarese, Duane Stevenson</b> Osteology of the Northern Ronquil, <i>Ronquilus jordani</i> , and the Comparative Development of the Skeleton of Bathymasteridae (Zoarcoidei): Insights into Systematic Relationships
3:30 PM			47	<b>YoungSun Song*, Jin-Koo Kim</b> Cryptic Diversity of Hagfishes (Family Myxinidae) collected from Korea, Japan, Vietnam and Argentina
3:45 PM		<b>Panel &amp; Discussion</b>	79	<b>Fernando Alda*, Victor A. Tagliacollo, Maxwell J. Bernt, Brandon T. Waltz, William B. Ludt, James S. Albert, Prosan-ta Chakrabarty</b> Phylogenomics of Neotropical electric fishes (Gymnotiformes)
4:00 PM	<b>POSTER SESSION II Rio Grande Hall</b>			
5:00 PM				
6:00 PM				

\* denotes presenter

# Oral Presentations - Saturday, 15 July - Afternoon

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	<b>AES SYMPOSIUM APPLICATIONS OF PHYSIOLOGICAL ECOLOGY</b>		<b>TURTLE CONSERVATION</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Kady Lyons</b>		<b>Brad Shaffer</b>	<b>MODERATOR</b>
<b>743</b>	<b>Christopher G. Lowe*</b> , Emily Meese, Sarah Luongo, Diego Bernal	<b>784</b>	<b>H Bradley Shaffer*</b> , Jannet Vu, Phil Spinks, Robert Thomson  The Turtle Tree of Life and how it Informs Global Conservation Priorities	<b>1:30 PM</b>
	New Advances in Measuring and Modeling Metabolic Costs of Elasmobranchs To Predict the Future	<b>201</b>	<b>Roy Averill-Murray*</b> , Kimberleigh Field  Population Augmentation as a Recovery Strategy for the Mojave Desert Tortoise ( <i>Gopherus agassizii</i> )	<b>1:45 PM</b>
<b>579</b>	<b>G - Jennifer Bigman*</b> , Nicholas Wegner, Nicholas Dulvy  Does respiratory morphology explain the speed of life?	<b>185</b>	<b>Kirsten Dutcher*</b> , Amy Vandergast, Ken Nussear, Todd Esque, Anna Mittelberg, Jill Heaton  A Recent History of Mojave Desert Tortoise ( <i>Gopherus agassizii</i> ) Genetic Connectivity in Relation to Utility-Scale Solar Development	<b>2:00 PM</b>
<b>209</b>	<b>Kevin Weng*</b> , Gen Del Raye, Dan Crear  How Do You Know When a Shark is in Love? It's all in the Heart (Rate)	<b>174</b>	<b>David Steen*</b> , Orin Robinson  Estimating Freshwater Turtle Mortality Rates and Population Declines Following Hook Ingestion	<b>2:15 PM</b>
<b>559</b>	<b>Aaron Carlisle*</b> , Mark Denny, Nishad Jayasundara, Adrian Gleiss, Elliot Hazen, Salvador Jorgensen, Kady Lyons, Heidi Dewar, Christopher Lowe, Barbara Block, Steven Bograd  Warm Sharks in a Cold Ocean: Examining Thermal Physiological Boundaries Underlying Lamnid Shark Distribution	<b>347</b>	<b>Tomo Eguchi*</b> , Sam McClatchie, Cara Wilson, Scott Benson, Jeffrey Seminoff, Robin LeRoux  Density, abundance, and distribution of loggerhead turtles off southern California during an extremely warm period	<b>2:30 PM</b>
		<b>577</b>	<b>Erin Levesque*</b> , Andrew Grosse  An Evaluation of Culturing Diamondback Terrapins, <i>Malaclemys terrapin</i> , in Charleston, SC	<b>2:45 PM</b>
		<b>695</b>	<b>Nancy Karraker*</b> , Kevin Shoemaker  Effects of Field Mowing on Persistence of Eastern Box Turtle ( <i>Terrapene carolina</i> ) Populations	<b>3:00 PM</b>
	<b>Open Discussion</b>	<b>238</b>	<b>Thomas Duchak*</b> , Russell Burke  Habitat and Species-specific Factors could be causing Maternally-linked Hatching Failure in a Threatened Turtle Population	<b>3:15 PM</b>
		<b>137</b>	<b>Donald Brown*</b> , Madaline Cochrane, Ron Moen  Standardized Design for Wood Turtle Population Monitoring in the Upper Midwest, USA	<b>3:30 PM</b>
		<b>850</b>	<b>Kyle Barrett*</b> , Theresa Stratmann, Thomas Floyd, Michael Knoerr  Assessing bog turtle distribution and status for populations in the South: the role of habitat, history, and predation	<b>3:45 PM</b>
<b>POSTER SESSION II</b> Rio Grande Hall				<b>4:00 PM</b>
				<b>5:00 PM</b>
				<b>6:00 PM</b>

\* denotes presenter



# Oral Presentations - Saturday, 15 July - Afternoon

ROOM		<i>Salon/Ballroom A</i>		<i>San Antonio</i>
SESSION/ SYMPOSIUM		HERP GENETICS		AES CONSERVATION & MANAGEMENT II
MODERATOR		Robert Page		Ramon Bonfil
1:30 PM	766	<p style="text-align: center;"><b>William Keitt*, Michael R.J. Forstner</b></p> <p>Examining the Utility of Environmental DNA (eDNA) as a Potential Survey Alternative to Detect the Rare, and Elusive Houston Toad (<i>Bufo</i> [=<i>Anaxyrus</i>] <i>houstonensis</i>)</p>	886	<p style="text-align: center;"><b>Sonja Fordham*</b></p> <p>Wait, what? That's legal? An examination of under-appreciated inadequacies and imbalances in elasmobranch conservation policy</p>
1:45 PM	659	<p style="text-align: center;"><b>Alexa Trujillo*, Matthew Lawrance, Kiernan Oknefski, Richard Seigel, Anna Savage</b></p> <p>Evolutionary Dynamics of an Expressed Class II MHC Gene in Rapid Frog Populations Impacted by Emerging Infectious Diseases</p>	308	<p style="text-align: center;"><b>Karyl Brewster-Geisz*, Guy DuBeck, Jacqueline Wilson, Sarah McLaughlin, Tobey Curtis</b></p> <p>U.S. Atlantic shark management: what do the terms "overfished" and "overfishing" mean for sharks?</p>
2:00 PM	596	<p style="text-align: center;"><b>Audrey Kelly*, Karin Pfennig</b></p> <p>Variation in Hybrid Post-metamorphic Survival Drives Patterns of Introgression in Spadefoot Toads</p>	207	<p style="text-align: center;"><b>Chelsey N. Young*, Margaret H. Miller, John Carlson</b></p> <p>Understanding the U.S. Endangered Species Act and Examining Trends in Elasmobranch Petitions and Listings</p>
2:15 PM	470	<p style="text-align: center;"><b>Iris Holmes, Maggie Grundler, Alison Davis Rabosky*</b></p> <p>Color Mosaics in Frogs and Snakes: What Drives Geographic Variation in Color Polymorphism?</p>	394	<p style="text-align: center;"><b>Nicholas Dulvy*, Colin Simpfendorfer</b></p> <p>Bright spots of sustainable shark fishing</p>
2:30 PM			643	<p style="text-align: center;"><b>Linda Planthof*, Paddy Walker, Irene Kingma</b></p> <p>Elasmobranch Management in the European Union: Progress and Challenges</p>
2:45 PM	102	<p style="text-align: center;"><b>Kristin Hinkson*, Stephen Richter</b></p> <p>Success of Management Practices: Genetic Diversity and Effective Size in the Endangered Dusky Gopher Frog (<i>Lithobates sevosus</i>)</p>	656	<p style="text-align: center;"><b>Irene Kingma*, Paddy Walker, Linda Planthof</b></p> <p>How to protect Caribbean sharks: two recent case studies</p>
3:00 PM	572	<p style="text-align: center;"><b>Anna Savage*, Matthew Lawrance, Elizabeth Abney, Katherine Mansfield</b></p> <p>Co-Evolution of Immune Genes and Herpesviruses in Juvenile Green and Loggerhead Sea Turtles</p>	48	<p style="text-align: center;"><b>Olga Koubrak*</b></p> <p>A Future for a Forgotten Predator: An Assessment of International Legal Frameworks for Protection and Recovery of the Caribbean Sawfishes <i>Pristis pristis</i> and <i>Pristis pectinata</i></p>
3:15 PM	100	<p style="text-align: center;"><b>Jared Wood, Stephanie Dowell, Todd Campbell, Robert Page*</b></p> <p>Insights into the Introduction Histories and Population Genetic Dynamics of the Nile Monitor (<i>Varanus niloticus</i>) and the Argentine Black-and-White Tegu (<i>Salvator merianae</i>) in Florida</p>	225	<p style="text-align: center;"><b>Ramón Bonfil*, Alexis Janosik, Oscar Uriel Mendoza-Vargas, Melina Ricaño-Soriano, Ivet Valladolid-Salazar, Nichelle VanTassel</b></p> <p>Needle in a Haystack: Preliminary Results of Using eDNA to Find the Last Sawfishes in Mexico</p>
3:30 PM	550	<p style="text-align: center;"><b>Audrey Matheny*, Laura Kimmel, Gary Thomas, Emily Gertrand, Susan McKenna, Samah Houmam, Allyson Fenwick</b></p> <p>Comparative Genetic Structure of Mediterranean Geckos (<i>Hemidactylus turcicus</i>) across Central Oklahoma</p>	638	<p style="text-align: center;"><b>Dean Grubbs*, John Carlson, Andrea Kroetz, Mark Bond, Bianca Prohaska, Bryan Keller</b></p> <p>First observation of the birth of wild smalltooth sawfish, <i>Pristis pectinata</i>, and the use of varied telemetry approaches to assess sawfish habitat use and residency in Andros, the Bahamas</p>
3:45 PM	299	<p style="text-align: center;"><b>Benjamin Karin, Tony Gamble, Todd Jackman*</b></p> <p>Rapidly Evolving Long Exon Capture: A New Sequence Capture Dataset for Phylogenomics in Amniotes</p>		
4:00 PM	<b>POSTER SESSION II</b> <b>Rio Grande Hall</b>			
5:00 PM				
6:00 PM				

\* denotes presenter

# Oral Presentations - Saturday, 15 July - Afternoon

	<i>Pecos</i>		<i>San Marcos</i>	ROOM
	LFC PHYSIOLOGICAL PERFORMANCE I		HERP MORPHOLOGY & DEVELOPMENT	SESSION/ SYMPOSIUM
	Prescilla Perrichon		Scott Parker	MODERATOR
	Introduction: Physiology	761	<p><b>Mingna V. Zhuang*</b>, Anthony P. Russell, Heather A. Jamniczky, Timothy E. Higham</p> <p>Evolution of the gecko ankle in relation to the acquisition of frictional adhesion: A geometric morphometric analysis of the meso-tarsal joint</p>	1:30 PM
532	Fernando Galvez*	509	<p><b>Juan D. Daza*</b>, Aaron M. Bauer, J. Salvador Arias, Edward L. Stanley, David A. Grimaldi</p> <p>At the root of the Gekkota clade, who is the oldest?</p>	1:45 PM
	The Integrative Physiology and Comparative Genomics of Osmotic Diversification in Fundulus Species	199	<p><b>Jessica Maisano*</b>, Travis LaDuc, Christopher Bell, Diane Barber</p> <p>The Cephalic Osteoderms of Varanus komodoensis as Revealed by High-Resolution X-ray Computed Tomography</p>	2:00 PM
		75	<p><b>Steve Huskey*</b>, Michael Smith, Christopher Anderson, Kenny Barnett</p> <p>Functional Diversity of the Gular Pouch in Chameleons: Who Gives a Hoot!</p>	2:15 PM
911	Carlos Alfonso Alvarez-González, Rafael Martinez Garcia*	94	<p><b>Travis Hagey*</b>, Jordan Garcia, Oacia Fair, Nikki Cavalieri, Barb Lundrigan</p> <p>Variation in Lizard Adhesive Toe Pad Shape</p>	2:30 PM
	Digestive Physiology in Fish Larvae	43	<b>Robin Andrews*</b>	2:45 PM
		355	<p><b>Scott Parker*</b>, Valerie Dimkovikj</p> <p>Comparative Responses to Hypobaric Versus Regional Hypoxia in Reptilian Embryos</p>	3:00 PM
913	Benjamin Dubansky*, Warren Burggren	163	<p><b>Deran Reddy*</b></p> <p>A Morphogenetic study of the Lungs of the Nile crocodile using Electron Microscopy</p>	3:15 PM
	Growth, Development, and the Measure of Cardiovascular Physiology in Embryonic and Larval Teleost Fish	188	<p><b>Christopher Thigpen*</b>, Stanley Trauth</p> <p>Comparative Serous Gland Histology and Histochemistry in the Skin of North American Hylid and Ranid Frogs</p>	3:30 PM
		22	<p><b>Nicole Valenzuela*</b>, Srihari Radhakrishnan, Robert Literman</p> <p>Sexually dimorphic DNA methylation of sex-determining genes in TSD painted turtle hatchlings and their historic methylation revealed by genome-wide analyses</p>	3:45 PM
<b>Poster Session II</b> <b>Rio Grande Hall</b>				4:00 PM
				5:00 PM
				6:00 PM

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Morning

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		<b>AES ECOLOGY I</b>		<b>LIZARD ECOLOGY</b>
MODERATOR		<b>Bryan Frazier</b>		<b>Daniel Leavitt</b>
8:00 AM	92	<b>Matthew Jargowsky*, Marcus Drymon</b> Spatial Ecology of Rays in Mobile Bay	246	<b>Daniel Leavitt*, Christopher Schalk</b> Functional perspectives on the dynamics of desert lizard assemblages
8:15 AM	910	<b>Brent Winner*</b> A Multi-decadal Analysis of Distribution, Relative Abundance, and Habitat Utilization of the Cownose Ray, ( <i>Rhinoptera bonasus</i> ), in the southeastern United States	414	<b>Matthew Lattanzio*</b> Cool and Connected: The (Spatial) Thermal Ecology of a Montane Lizard
8:30 AM	309	<b>Bryan Frazier*, William Driggers III, Camilla McCandless, Ashley Shaw, Elizabeth Vinyard</b> On the importance of sampling gear: Relative abundance and habitat utilization of sharks in South Carolina revisited	624	<b>Christopher Thawley*, Jason Kolbe</b> Effects of Artificial Light at Night on Reproduction in Brown Anoles ( <i>Anolis sagrei</i> )
8:45 AM	727	<b>Jeffrey Plumlee*, Kaylan Dance, Phillip Match, John Mohan, Travis Richards, Thomas TinHan, David Wells</b> Community structure of elasmobranchs in estuaries along the northwest Gulf of Mexico	661	<b>Dan Rabosky*</b> From Arid Australia to the Amazon: Comparative Ecology of the World's Most Diverse Squamate Communities
9:00 AM	466	<b>Krupskaya Narváez, Filip Osaer*</b> ANGELSHARK-ID: Creating a baseline for long-term angelshark monitoring in the Canary Islands	77	<b>Casey Brewster*, Steven Beaupre</b> The impact of woody vegetation encroachment on body size and reproduction in the Eastern Collared Lizard ( <i>Crotaphytus collaris</i> )
9:15 AM			514	<b>Ariel Steele*, Daniel Warner</b> The Effect of Incubation Temperature on Sex and Morphology in a Lizard
9:30 AM		<b>BREAK - Plaza Foyer</b>		
SESSION/ SYMPOSIUM		<b>AES ECOLOGY II</b>		<b>REPTILE CONSERVATION</b>
MODERATOR		<b>Joe Bizzarro</b>		<b>Christopher Howey</b>
10:00 AM	255	<b>Philip Match*, Jeremy Kiszka, Johann Mourier, Serge Planes, Michael Heithaus</b> Species co-occurrence affects the trophic interactions of two juvenile reef shark species in tropical lagoon nurseries in Moorea (French Polynesia)	646	<b>Ashley LaVere*, Oscar Brenes, Kimberly Andrews</b> The Cutting Edge: A Rapid Loss of Beach Front Habitat for Reptile Communities in Costa Rica
10:15 AM	436	<b>Matthew Smukall*, Tristan Guttridge, Samuel Gruber</b> Seasonal and Ontogenetic Shifts in Movement and Trophic Position of Tiger Sharks <i>Galeocerdo cuvier</i> near Bimini, Bahamas	70	<b>Brian Crawford*, Clint Moore, John Maerz, D. Todd Jones-Farrand, Mike Harris</b> Range-wide Status Modeling to Accelerate Conservation of At-Risk Species in the Longleaf System
10:30 AM	512	<b>Rob Nowicki*, Mike Heithaus, Jordan Thomson, Derek Burkholder, Kirk Gastrich, Aaron Wirsing</b> Does widespread resource loss influence trophic characteristics of tiger sharks?	754	<b>Amy Yackel Adams*, Bjorn Lardner, Adam Knox, Julie Savidge, Robert Reed</b> Evaluating searcher fatigue and taxon-bias during nocturnal visual encounter surveys for reptiles on Saipan, Commonwealth of the Northern Mariana Islands, USA
10:45 AM	262	<b>Oliver Shipley*, Jill Olin, Michael Frisk</b> Environmental and biological drivers of intra- and inter-specific resource use among sympatric skates in the northwest Atlantic	790	<b>Christopher Howey*</b> Restoration of Timber Rattlesnake Rookeries: Efficacy of Daylighting Management
11:00 AM	86	<b>Joshua Stewart*, Christoph Rohner, Alessandro Ponzo, Daniel Fernando, Kerstin Forsberg, Brice Semmens</b> Trophic overlap in mobulid rays: insights from stable isotope analysis	294	<b>Sarah Baker*, Michael Dreslik, Christopher Phillips, Matthew Allender</b> Impact of Snake Fungal Disease on Population Viability
11:15 AM	287	<b>Liz Vinyard*, Wally Bublely, Gorka Sancho, Bryan Frazier</b> Diet of the Finetooth Shark, ( <i>Carcharhinus isodon</i> ), in coastal waters of the western North Atlantic Ocean	181	<b>Craig Lind*, Ignacio Moore, Jeffrey Lorch, Terence Farrell</b> Patterns of Circulating Corticosterone in a Population of Rattlesnakes Afflicted With Snake Fungal Disease: Stress Hormones as a Potential Mediator of Seasonal Cycles in Disease Severity and Outcomes
11:30 AM	835	<b>Joseph J. Bizzarro*, Aaron B. Carlisle, Wade D. Smith, Enric Cortés</b> Trophodynamics and Ecological Impacts of Eastern North Pacific Sharks	724	<b>Kimberly M. Andrews*, Oscar Brenes, Richard G. Bauer, Lance Paden, Luis Deivi Castillo</b> Tricks of the Trade in Researching and Managing Healthy Crocodylian Populations
11:45 AM			758	<b>Cord Eversole*, Scott Henke, Selma Glasscock, Bart Ballard, Randy Powell, David Wester</b> A theoretical harvest model for American alligators ( <i>Alligator mississippiensis</i> ) in Texas
12:00 PM		<b>LUNCH ON YOUR OWN</b>		

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Morning

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	<b>AMPHIBIAN CONSERVATION I</b>		<b>GENERAL HERPETOLOGY</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Jennifer Olori</b>		<b>Amber Hale</b>	<b>MODERATOR</b>
<b>14</b>	<b>Joseph R. Mendelson III*</b> 10 Years of the Amphibian Ark: An overview of amphibian conservation-breeding programs	<b>873</b>	<b>Christopher Beachy*</b> How plethodontid lunglessness informs a perspective on ancestral state reconstruction for life cycle evolution	<b>8:00 AM</b>
<b>290</b>	<b>Hardin Waddle*, Michael Adams, Daniel Calhoun, Robert Fisher, Evan Grant, Daniel Grear, Brian Halstead, Blake Hossack, Jeffery Lorch, Erin Muths, Susan Walls, LeAnn White</b> A National Survey for Batrachochytrium salamandrivorans (Bsal) in the United States	<b>768</b>	<b>Jarad Cochran*, Naya Eady, David Haskins, Melissa Pilgrim, Tracey Tuberville</b> Influence of Coal Combustion Residues on Metabolic Rates and Immune Responses in Eastern Mud Turtles (Kinosternon subrubrum)	<b>8:15 AM</b>
<b>190</b>	<b>Miranda Strasburg*, Michelle Boone</b> Examining the Role of Pesticide Exposure on Parasite Infections in Amphibians	<b>99</b>	<b>Samuel Tegge*, Steve Huskey, Michael Smith, Christopher Anderson, Kenneth Barnett, Emily Hamilton, Kathryn Laslie</b> The Behavioral Context and Mechanism of Biotremors in the Veiled Chameleon, Chamaeleo calytratus	<b>8:30 AM</b>
<b>504</b>	<b>Sarah Corey-Rivas*</b> Population-Level Variation in Southern Rocky Mountain Boreal Toad Susceptibility to Batrachochytrium dendrobatidis	<b>794</b>	<b>Andrea Villamizar-Gomez*, William Keitt, Zachary Adcock, Dittmar Hahn, Michael Forstner</b> Prevalence of chytrid fungus (Batrachochytrium dendrobatidis) in the Jollyville Plateau Salamanders (Eurycea tonkawae) and its correlation with microhabitat	<b>8:45 AM</b>
<b>854</b>	<b>Jennifer Olori*, Sofia Windstam</b> Multi-year Prevalence and Co-infection Dynamics of Ranavirus and Chytrid Fungus in Central New York	<b>428</b>	<b>Amber Hale*, Mark Merchant</b> Autophagy pathway in the American alligator	<b>9:00 AM</b>
<b>289</b>	<b>Allison Sacerdote-Velat*, Mary Beth Manjerovic, Rachel Santymire</b> Community, Health, and Stress Response of Reintroduced and Resident Amphibians to Oak Woodland Restoration			<b>9:15 AM</b>
<b>BREAK - Plaza Foyer</b>				<b>9:30 AM</b>
	<b>AMPHIBIAN CONSERVATION II</b>		<b>AMPHIBIAN BIOLOGY/ ECOLOGY/ CONSERVATION</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Steve Johnson</b>		<b>David Blackburn</b>	<b>MODERATOR</b>
<b>167</b>	<b>Christopher Schalk*, Carmen Montana, Kelsey Kralman, Daniel Leavitt</b> Functional distance and establishment of non-native species with complex life cycles	<b>551</b>	<b>David Blackburn*, Edward Stanley</b> A Digital Encyclopedia of Frogs	<b>10:00 AM</b>
<b>96</b>	<b>Anne Devan-Song*, Justine M. Fox, Haley A. Moniz, Nancy E. Karraker</b> Can Upland Clustering of Eastern Spadefoot Toads (Scaphiopus holbrookii) Predict Breeding Pool Locations?	<b>581</b>	<b>Leah Perez*, D. Brent Burt, Matthew A. Kwiatkowski</b> The Evolution of Potential Color Signals in Hylid Frogs	<b>10:15 AM</b>
<b>443</b>	<b>Takashi Haramura*</b> Acoustic cues can be used to attract invasive cane toads in Japan	<b>53</b>	<b>Paul Crump*, Jeff Houlahan</b> Using Out-of-Sample Predictions to Evaluate Performance of Automated Acoustic-Abundance Models	<b>10:30 AM</b>
<b>578</b>	<b>Steven Whitfield*, Jacob Kerby, Juan Abarca, Gilbert Alvarado</b> Ecology and Conservation of Relict Amphibian Populations in Costa Rica	<b>782</b>	<b>Gerardo Carfagno*, Lucas Thompson, Andrea Sitton, Kurt Andresen, Taylor Bury, Laura Lee, Kevin Lerner, Peter Fong</b> Results of Experimental Gold Nanoparticle Exposure in Wood Frog (Lithobates sylvaticus) and Bullfrog (L. catesbeianus) Tadpoles	<b>10:45 AM</b>
<b>776</b>	<b>Steve Johnson*, Suzanne Simpson, Emily Leary</b> Critical thermal minima of Cuban Treefrogs in Florida	<b>617</b>	<b>Ethan Kessler*, John Crawford, Andrew Kuhns, Christopher Phillips</b> Local and Landscape Drivers of Amphibian Community Composition across Illinois	<b>11:00 AM</b>
<b>799</b>	<b>John Peterson*, Nick Boehme, Tyler Sternbach, Gary Casper</b> Should frog vocalization surveys be conducted later at night?	<b>45</b>	<b>Bryan Juarez*, Daniel Moen, Dean Adams</b> Morphology predicts jumping performance in frogs	<b>11:15 AM</b>
		<b>371</b>	<b>Jacquelyn Guzy*, Kelly Halloran, Jessica Homyack, John D. Willson</b> Influence of Streamside Management Zones on Salamander Species Richness within Managed Forests of the Ouachita Mountains of Arkansas	<b>11:30 AM</b>
				<b>11:45 AM</b>
<b>LUNCH ON YOUR OWN</b>				<b>12:00 PM</b>

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Morning

ROOM		Salon/Ballroom A		San Antonio
SESSION/ SYMPOSIUM		FISH ECOLOGY I		AES GENETICS/ SYSTEMATICS/ BIOGEOGRAPHY
MODERATOR		Tracey Sutton		Karyl Brewster-Geisz
8:00 AM	649	Tracey Sutton*, Jon Moore, April Cook, Andrea Bernard, Kevin Boswell, Ron Eytan, Kim Finnegan, Christopher Kenaley, Lacey Malarky, Ted Pietsch, Nina Pruzinsky, Mahmood Shivji, Max Weber, R. David Wells, Danté Fenolio The Epi-to-Bathypelagic Ichthyofauna of the Gulf of Mexico: Recent Surveys Reveal Exceptional Diversity and Endemism, with 180 New Species Records	374	Milton Tan*, Al Dove, Tim Read  A New and Improved Genome Assembly of the Whale Shark ( <i>Rhincodon typus</i> ) and Comparative Genomics of Positive Selection
8:15 AM	602	Michael J. Andres*, Mark S. Peterson, E. John Anderson, Spatiotemporal Variation in the Parasite Community of the Bay	434	Alayne Chappell*, Dovi Kacev, Andrew Nosal, Kevin Feldheim, Population Structure and Genetic Diversity in Southern California
8:30 AM	772	Raelynn Deaton Haynes*, Kelly McNab, Caitlyn Higgins, Briana Sebastian, David Johnson Seagrass-Associated Fish Biodiversity in Texas Coastal Ecosystems	595	Tom Kashiwagi*, Andrea Marshall, Shannon Corrigan, Alistair Dove, Rafael de la Parra Venegas, Gavin Naylor, Edward Heist  Are there DNA evidences for the new species of Manta ray?
8:45 AM	354	Grayce Palmer, Derek Hogan*, Blair Sterba-Boatwright, Invasive lionfish <i>Pterois volitans</i> reduce the densitybut not the	445	Andrea Marshall*, Tom Kashiwagi, Harry Webb, Al Dove  Growing Evidence for a Distinct Third Species of Manta Ray
9:00 AM	899	George Guillen*, Jenny Oakley, Mandi Gordon, Cory Scanes Influence of Freshwater Inflow on Larval and Juvenile Fishes	30	Margaret McClain*, Austin Gallagher, Neil Hammerschlag, Marcus Drymon, Dean Grubbs, Tristan Guttridge, Toby Daly-Engel  Connectivity and Relatedness in Tiger Sharks between the Gulf of
9:15 AM				
9:30 AM		<b>BREAK - Plaza Foyer</b>		
SESSION/ SYMPOSIUM		FISH ECOLOGY II		AES REPRODUCTION/ LIFE HISTORY
MODERATOR		Kirk Winemiller		Jim Gelsleichter
10:00 AM	527	Kirk Winemiller*, Pitagoras Piana, Eduardo Cunha, Angelo Agostinho, Luiz Gomes Using Fish Functional Traits for Individual-based Modeling to Simulate Food-web Dynamics in River-floodplain Systems	437	Jim Gelsleichter*  Preliminary Observations on the Search for a Shark Early Pregnancy Test
10:15 AM	319	Zachery D. Zbinden*, William J. Matthews Beta Diversity of Stream Fish Assemblages: Partitioning Variation Between Spatial and Environmental Factors	227	Taketeru Tomita*, Ryo Nozu, Masaru Nakamura, Keiichi Sato Oxygen-diffusion capacity of the white shark uterus: Oxygen delivery to an embryo without a placenta
10:30 AM	32	Bill Matthews*, Bob Nairn, Nick Shepheard, Zach Zbinden, Aaron Geheber, Edie Marsh-Matthews Fishes of a Heavy Metal Contaminated Superfund Stream (Tar Creek, Oklahoma) after Operation of a Passive Treatment System	191	Mariano Elisio*, Jorge, H. Colonello, Cynthia, A. Awruch, Gustavo, M. Somoza, Gustavo, J. Macchi  Inter-annual Changes in the Narrownose Smooth-hound Shark ( <i>Mustelus schmitti</i> ) reproductive timing in Relation to Temperature Patterns in Coastal Waters of the South-western Atlantic Ocean (34-42 °S)
10:45 AM	888	Jania M. Gómez-Romero, Ruth T. Chacón-Polo, Ángel L. Martínez-González, Glenys Tordecilla-Petro, Charles W. Olaya-Nieto1, Fredys F. Segura-Guevara* Trophic ecology of Cachagua <i>Trachelyopterus insignis</i> in the	518	Jessica Dutton*, Kaitlyn Gioia, Nicholas Fisher, Daniel Madigan  Mercury Bioaccumulation and Maternal Transfer in Spiny Dogfish
11:00 AM	33	Edie Marsh-Matthews*, William Matthews  Temperature affects recruitment of Western Mosquitofish, <i>Gambusia affinis</i> , in mesocosms	858	Charles F. Cotton*, R. Dean Grubbs, Bryan Keller, Austin Heil, Alyssa Mathers, Shannon Rolfe  Comparing life histories of sympatric deep-water dogfishes ( <i>Squalus cubensis</i> and <i>S. cf. mitsukurii</i> ) from the northern Gulf of Mexico
11:15 AM	256	Stuart Willis*, Christopher Hollenbeck, Jon Puritz, John Gold, David Portnoy Dispersal is limited by distance and depth in young-of-the-year, deep-water snappers ( <i>Lutjanidae</i> ) in the U.S. Caribbean as revealed by ddRAD population genomics	268	Kristine Stump*, David Die, John McManus, Tristan Guttridge, Samuel Gruber  Using a Long-Term Mark-Recapture Dataset to Investigate Effects of Habitat Loss on Survival Probability of Juvenile Lemon Sharks
11:30 AM	203	Paul Chittaro*, Rich Zabel, Chris Grandin, Dayv Lowry Investigating Declines in Body Size of Salish Sea Pacific Hake	608	Harold Pratt*, Theo Pratt, Dani Morley, Susan Lowerre-Barbieri4, Angela Collins, Jeffrey Carrier, Kristen Hart  Partial Migration of the Nurse shark, <i>Ginglymostoma cirratum</i> , from
11:45 AM	312	Rosanna Milligan*, Tracey Sutton Quantifying Pelagic Habitat Use by Myctophids in the Northern		
12:00 PM		<b>LUNCH ON YOUR OWN</b>		

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Morning

	<i>Pecos</i>		<i>San Marcos</i>	ROOM
	<b>LFC PHYSIOLOGICAL PERFORMANCE II</b>			<b>SESSION/ SYMPOSIUM</b>
	<b>Warren Burggren</b>			<b>MODERATOR</b>
<b>891</b>	<b>Elias Oziolor, Cole Matson*</b>			<b>8:00 AM</b>
	Evolutionary toxicology: Genetic adaptation in Gulf killifish ( <i>Fundulus grandis</i> ) populations chronically exposed to environmental contaminants			<b>8:15 AM</b>
				<b>8:30 AM</b>
<b>359</b>		<b>Edward Mager*</b>		
	Gulf of Mexico Oil Pollution and Larval Fish Physiology			<b>9:00 AM</b>
				<b>9:15 AM</b>
<b>BREAK - Plaza Foyer</b>				<b>9:30 AM</b>
	<b>LFC PHYSIOLOGICAL PERFORMANCE III</b>		<b>HERP BIOGEOGRAPHY &amp; PHYLOGEOGRAPHY I</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Warren Burggren</b>		<b>Sarah Corey-Rivas</b>	<b>MODERATOR</b>
<b>812</b>	<b>Nancy Denslow*, Erchao Li, Derek Bolser, Kevin Kroll, David Dreier, Erica Brockmeier, Francesco Falciani</b>	<b>623</b>	<b>Tom Devitt*, David Cannatella, David Hillis</b>	<b>10:00 AM</b>
	Exposure of Fathead Minnows ( <i>Pimephales promelas</i> ) to Narcotic Chemicals Alters Energy Metabolism and Growth		Species Formation in Eurycea Salamanders of the Edwards-Trinity Aquifer System, West-Central Texas	
		<b>101</b>	<b>Daniel Portik*, Adam Leache, Danielle Rivera, David Blackburn, Matthew Fujita</b>	<b>10:15 AM</b>
			Evaluating mechanisms of diversification in a Guineo-Congolian forest frog using demographic model selection	
		<b>729</b>	<b>Edward Myers*, Frank Burbrink</b>	<b>10:30 AM</b>
			Does ecological divergence promote speciation across a biogeographic barrier?	
<b>827</b>	<b>Jose Fernando Mendez Sanchez*</b>	<b>282</b>	<b>Derek Tucker*, Jack Sites, Jr., Tomas Hrbek, Adam Leache, Nelsy Rocío Pinto-Sánchez, R. Alexander Pyron, Miguel Rodríguez, Omar Torres-Carvajal, Giuseppe Gagliardi Urrutia, Pablo Venegas, Laurie Vitt, Fernanda Werneck, Guarino Colli</b>	<b>10:45 AM</b>
	Physiology of Larval Air Breathing Fish		Species Boundaries and Phylogeography of the Widespread Giant Ameiva ( <i>Ameiva ameiva</i> : Teiidae)	
		<b>843</b>	<b>Eric Hoffman*, Steve Johnson, Sarah May, Anna Farmer, Stacey Lance</b>	<b>11:00 AM</b>
			Connectivity vs Isolation: a case study of gene flow in an imperiled salamander	
		<b>902</b>	<b>Martin Femenías*, Luciano J. Avila, Jack W. Sites, Jr., Mariana Morando</b>	<b>11:15 AM</b>
			The Leiosaurae "matuastos" lizard clade endemic to southern South America: phylogeography, species limits, biogeographic history and new candidate species	
<b>837</b>	<b>Monica Vanessa Garduño Paz*</b>	<b>183</b>	<b>Ishan Agarwal*, Aaron Bauer, Tony Gamble, Varad Giri, Uma</b>	<b>11:30 AM</b>
	Physiological and Morphological Phenotypic Plasticity of Larval Fish 11:30 A—12:15 P		A complex biogeographic history for the eyelid geckos ( <i>Eublepharidae</i> , <i>Eublepharis</i> )	
				<b>11:45 AM</b>
<b>LUNCH ON YOUR OWN</b>				<b>12:00 PM</b>

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Afternoon

ROOM		<i>Glass Oaks</i>		<i>Salon/Ballroom B</i>
SESSION/ SYMPOSIUM		AES ECOLOGY III		GENERAL ICHTHYOLOGY I
MODERATOR		Charles Bangley		Gianluca Polgar
1:30 PM	303	<p><b>Charles Bangley*</b>, Matthew Ogburn, Robert Fisher, Carla Curran, Robert Aguilar, Michael Goodison, Kierra Heggie, Anson Hines</p> <p>Migratory Behavior of Cownose Rays (<i>Rhinoptera bonasus</i>) on the U.S. Atlantic Coast</p>	345	<p><b>Brandon Waltz*</b>, Fernando Alda, Prosanta Chakrabarty, James Albert</p> <p>Addressing the Achilles Heel of Biodiversity: UCEs Indicate Cryptic Speciation in the Neotropical Electric Fish <i>Eigenmannia macrops</i></p>
1:45 PM	697	<p><b>Michael Frisk*</b>, Keith Dunton, Chris Martinez, Catherine Ziegler, Josh Zacharias</p> <p>Passive acoustic telemetry reveals seasonal long distance migrations in the winter skate (<i>Leucoraja ocellata</i>)</p>	205	<p style="text-align: center;"><b>Carla Stout, Jonathan Armbruster*</b></p> <p>Molecular systematics of <i>Notropis</i> and related shiners (Cypriniformes: Leuciscidae)</p>
2:00 PM	838	<p><b>Michael Byrne*</b>, Heidi Dewar, Suzanne Kohin, Jeremy Vaud, Bradley Wetherbee, Mahmood Shivji</p> <p>Juvenile Shortfin Mako Shark Habitat Use in the Eastern North Pacific</p>	851	<p><b>Michael Sandel*</b>, Andres Aguilar, David Neely, Kayla Fast</p> <p>Evolution of the Coolest Hotspot: Interspecific Phylogeny of Baikal Sculpins</p>
2:15 PM	397	<p><b>Vital Heim*</b>, Dieter Ebert, Samuel H. Gruber, Tristan L. Guttridge</p> <p>Behaviour at a provisioning site and the effects on the habitat and space use of the great hammerhead shark, <i>Sphyrna mokarran</i>, in Bimini, Bahamas</p>	898	<p style="text-align: center;"><b>Christopher Kenaley*, Peter Jordan</b></p> <p>Body-Size Evolution in Ray-finned Fishes (Actinopterygii): Tempo, Mode, and Ecological Correlates</p>
2:30 PM			870	<p><b>Ronald Oldfield*</b>, Mimi Guo, Jacob Hooks, Abhinav Kakkuru, Jeffrey Sommer, Shelly McCain, William Lutterschmidt, Tom Lorenz, Adam Cohen, Dean Hendrickson</p> <p>Taxonomy and Osmoregulatory Capacity in Non-Native Herichthys Cichlid Fishes in the Gulf Coast Region of the United States</p>
2:45 PM				
3:00 PM		<b>BREAK - Plaza Foyer</b>		
SESSION/ SYMPOSIUM				GENERAL ICHTHYOLOGY II
MODERATOR				Eric Hilton
3:30 PM			46	<p style="text-align: center;"><b>Seung Eun Bae*, Jin-Koo Kim</b></p> <p>Significant Population Genetic Structure of the Grass Puffer (<i>Takifugu niphobles</i>) in Korean Waters: Evidence of Cryptic Species or Population Subdivision?</p>
3:45 PM			331	<p><b>John Denton*</b>, John Maisey, Mark Grace, Michael Doosey, Alan Pradel, Henry Bart, Gavin Naylor, Paul Tafforeau</p> <p>Unusual Cranial Morphology of the Pocket Shark <i>Mollisquama</i> sp. (Squaliformes; Dalatiidae) Suggests Potentially Novel Feeding Mechanics</p>
4:00 PM				
4:15 PM			11	<p style="text-align: center;"><b>Tim Berra*, Dion Wedd</b></p> <p>Salinity and spawning of nurseryfish, in the Adelaide River of northern Australia with notes on electrofishing and the only photo of a male carrying eggs</p>
4:30 PM				
4:45 PM				
5:00 PM				

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Afternoon

	<i>Wedgwood</i>		<i>Trinity</i>	ROOM
	<b>AMPHIBIAN CONSERVATION III</b>		<b>HERP SYSTEMATICS I</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Denita Weeks</b>		<b>Sara Ruane</b>	<b>MODERATOR</b>
<b>813</b>	<b>James Prather*, Shawn McCracken, Michael Forstner</b>  Increasing Habitat Connectivity of the Endangered Houston Toad ( <i>Bufo houstonensis</i> ) in the Lost Pines Ecological Area	<b>402</b>	<b>David Cannatella*</b>  Fossils and the Deep-Time Dimension of Frog Evolution	<b>1:30 PM</b>
<b>811</b>	<b>Anjana Parandhaman*, Madeleine J. Marsh, Michael R. J. Forstner</b>  Testing the Effectiveness of Captive Propagation as a Management Strategy for the Endangered Houston Toad ( <i>Bufo</i> [= <i>Anaxyrus</i> ] <i>houstonensis</i> )	<b>405</b>	<b>Luis M. P. Ceriaco*, Mariana P. Marques, Ishan Agarwal, Suzana Bandeira, Matthew P. Heinicke, David C. Blackburn, Aaron M. Bauer</b>  Southwestern African Poyntonophrynus: Mmorphological and Molecular Analyses Reveal Hidden Diversity in Southwestern Angola	<b>1:45 PM</b>
<b>817</b>	<b>Madeleine Marsh*, Shashwat Sirsi, Michael Forstner</b>  Evaluating the effects of Red Imported Fire Ants ( <i>Solenopsis invicta</i> ) on Juvenile Houston Toads ( <i>Bufo</i> = [ <i>Anaxyrus</i> ] <i>houstonensis</i> ) in a Coastal Prairie Grassland in Southeast Texas	<b>847</b>	<b>Anthony Barley*, Adrián Nieto Montes de Oca, Robert Thomson</b>  Elucidating the evolutionary history of Mexico's most 'problematic' lizards	<b>2:00 PM</b>
<b>833</b>	<b>Angela Burrow*, John Maerz</b>  The Contribution of Wetland Succession to Declines of Threatened Amphibians in the Longleaf Pine Ecosystem	<b>245</b>	<b>Aaron M. Bauer*, Ian G. Brennan, Ishan Agarwal, Luis M.P. Ceriaco, Matthew P. Heinicke, David C. Blackburn</b>  Unexpected Diversity in Southern Angolan Lineages of the <i>Pachydactylus</i> Group (Squamata: Gekkonidae)	<b>2:15 PM</b>
<b>141</b>	<b>Sean Graham*, Donald Walker, Crystal Kelehear</b>  Conservation Status of Dwarf Salamanders ( <i>Eurycea quadridigitata</i> complex) in Georgia	<b>736</b>	<b>Alexandre Ascenso*, Ana Lúcia Prudente, Fernando Rojas-Runjaic</b>  Morphological and molecular phylogeny of the <i>Erythrolamprus reginae</i> group	<b>2:30 PM</b>
<b>603</b>	<b>Emily McCallen*, Bart Kraus, Nick Burgmeier, Songlin Fei, Rod Williams</b>  Movement and Habitat Use in Eastern Hellbenders ( <i>Cryptobranchus alleganiensis alleganiensis</i> ) Following Population Augmentation	<b>64</b>	<b>Sara Ruane*, Christopher Austin</b>  Museum Specimens in the Age of Phylogenomics	<b>2:45 PM</b>
<b>BREAK - Plaza Foyer</b>				<b>3:00 PM</b>
	<b>AMPHIBIAN CONSERVATION IV</b>		<b>HERP SYSTEMATICS II/ HERP BIOGEOGRAPHY &amp; PHYLOGEOGRAPHY II</b>	<b>SESSION/ SYMPOSIUM</b>
	<b>Nancy Karraker</b>		<b>TBD</b>	<b>MODERATOR</b>
<b>773</b>	<b>Jillian S. Howard*, Kira D. McEntire, John C. Maerz</b>  Generating robust estimates of salamander vital rates to model population responses to climate change	<b>337</b>	<b>Matthew Heinicke*, James Titus-McQuillan, Edward Stanley, Aaron Bauer</b>  Evolutionary Insights from the Phylogeny of Southern African Shovel-nosed Snakes ( <i>Prosymna</i> )	<b>3:30 PM</b>
<b>718</b>	<b>William Sutton*, Michael Osborne, Jeff Bailey, Thomas Pauley</b>  Impacts of Stream Disturbances on an Appalachian Stream Salamander Assemblage	<b>224</b>	<b>Justin Bernstein*, Aaron Bauer, Hinrich Kaiser, Sven Mecke</b>  Complex and Cryptic: A multilocus phylogeny of Asian Pipe Snakes (Serpentes: <i>Cylindrophis</i> ) and the taxonomy of <i>Cylindrophis ruffus</i>	<b>3:45 PM</b>
<b>688</b>	<b>W. Jamie Barichivich*, Jonathan Chandler, Katherine M O'Donnell, Terry Peacock, Joe Reinman, Susan C Walls</b>  Status of the Frosted Flatwoods Salamander, <i>Ambystoma cingulatum</i> , at St Marks National Wildlife Refuge, FL	<b>129</b>	<b>Christopher Raxworthy*, Sara Ruane, Richard Pearson, Frank Burbrink</b>  Evolutionary Radiation of the Pseudoxyrhopiine Snakes in Madagascar	<b>4:00 PM</b>
<b>631</b>	<b>Nathan Bendik*, Laurie Dries</b>  Time Series Analysis of Barton Springs Salamander Counts	<b>594</b>	<b>E. Anne Chambers, Harry W. Greene, David M. Hillis*</b>  Species Delimitation in Geographically Variable Taxa: A Re-examination of the American Milksnakes ( <i>Lampropeltis triangulum</i> complex)	<b>4:15 PM</b>
<b>49</b>	<b>Donelle Robinson*</b>  Stream Habitat Recreation for the Barton Springs Salamander			<b>4:30 PM</b>
<b>134</b>	<b>Jason Ross*, Christina Feng, Michael Dreslik</b>  Evaluating Reptile and Amphibian Passage Gates using Remote Camera Traps	<b>180</b>	<b>Samuel Sweet*</b>  Drought and Terrestrial Plethodontids: Rediscovery of <i>Batrachoseps minor</i>	<b>4:45 PM</b>
				<b>5:00 PM</b>

\* denotes presenter



# Oral Presentations - Sunday, 16 July - Afternoon

ROOM		<i>Salon/Ballroom A</i>		<i>San Antonio</i>
SESSION/ SYMPOSIUM		FISH CONSERVATION I		AES BEHAVIOR
MODERATOR		Stuart Welsh		Tristan Guttridge
1:30 PM	249	<b>Shawna Mitchell*, Bernard Kuhajda, Matt Kulp, Dave Kazyak, Jason Henegar, Tim King, Anna George</b>  Assortative mating in a headwater Appalachian stream: a case study from the Great Smoky Mountains National Park	814	<b>Jeremy Vaudo*, Heidi Dewar, Michael Byrne, Bradley Wetherbee, Mahmood Shivji</b>  Coupling of horizontal and vertical movements of shortfin mako sharks ( <i>Isurus oxyrinchus</i> ) in the eastern North Pacific Ocean
1:45 PM	590	<b>Andrew Stites*, Joshua Sherwood, Jeremy Tiemann, Michael Dreslik</b>  Assessing the Distribution of Iowa Darters ( <i>Etheostoma exile</i> ) in Streams of Northern Illinois	815	<b>Tristan Guttridge*, Samuel Gruber, David Jacoby</b>  Validating Animal Social Structure Inference Methods: Acoustic Tracking vs. Direct Observations of Lemon Sharks, <i>Negaprion brevirostris</i>
2:00 PM	125	<b>Rebecca E. Blanton*, Mollie F. Cashner</b>  Conservation Genetics of the Kentucky Arrow Darter, <i>Etheostoma spilotum</i> (Percidae)	197	<b>Stephen Kajiura*, Jordan Waldron</b>  Seasonal Abundance and Spatial Distribution of Blacktip Sharks ( <i>Carcharhinus limbatus</i> ) in Southeast Florida
2:15 PM	83	<b>Justine Whitaker*, Amy Brower, Margaret Hunter, Alexis Janosik</b>  Retracing the phylogeographic structure of the lionfish ( <i>Pterois volitans</i> and <i>P. miles</i> ) invasion: a two marker approach that elucidates hidden diversity	675	<b>Michael McCallister*, Manuela Sales, Andrew Smith, John Mandelman, Andy Danylichuk, Matthew Ajemian</b>  Field Observations of Mating Behavior in Two Species of Myliobatid Stingrays
2:30 PM	907	<b>Ángel L. Martínez-González*, Fredys F. Segura-Guevara, Glenys Tordecilla-Petro, Charles W. Olaya-Nieto</b>  Length-Weight Relationship of Mayupa <i>Sternopygus macrurus</i> in the Low Sinu River, Colombia	198	<b>Ruth Hughes*, Kristen Pedersen, Steve Huskey</b>  The Kinematics of Envenomation by the Yellow Stingray, <i>Urobatis jamaicensis</i>
2:45 PM				
3:00 PM		<b>BREAK - Plaza Foyer</b>		
SESSION/ SYMPOSIUM		FISH CONSERVATION II		AES MORPHOLOGY
MODERATOR		Grantly Galland		Matt Kolmann
3:30 PM	283	<b>Caroline Arantes*, Kirk Winemiller</b>  Relationship between Forest Cover and Fish Diversity in the Amazon River	475	<b>Benjamin Hughes*, Tilo Burghardt, Michael Scholl</b>  Large-scale Automated Photo-identification of Individual Great White Sharks
3:45 PM	175	<b>Grantly Galland*, Shana Miller</b>  Harvest Strategies - the Next Phase of Fisheries Management for Tuna and Beyond	598	<b>Stephanie Crofts*, Brooke Flammang</b>  Flexibility and Morphology of Shark Tails
4:00 PM	465	<b>Bridgette Froeschke*, John Froeschke</b>  Does Size Matter?	420	<b>Matthew Kolmann*, Fernando Marques, Mason Dean, James Weaver, Nathan Lovejoy</b>  An adaptive ray-diation? Feeding and dietary diversification in freshwater stingrays
4:15 PM	42	<b>Leslie Jones*, Bridgette Froeschke, Brian Garman</b>  Factors influencing the population of Sheepshead, <i>Archosargus probatocephalus</i> , in Tampa Bay	916	<b>Laurent Duchatelet*, Nicolas Pinte, Taketeru Tomita, Jérôme Mallefet</b>  Species-specific dorsal luminous pattern in Etmopterids with an emphasis on the dorsal spine associated photophores
4:30 PM	165	<b>Mark Peterson*, Todd Slack, Erik Lang</b>  <i>Fundulus jenkinsi</i> (Evermann 1892) (Saltmarsh Topminnow) in Coastal Mississippi Watersheds, with Comments on Range-Wide Occurrences Based on Non-Vouchered and Museum Records		
4:45 PM				
5:00 PM				

\* denotes presenter

# Oral Presentations - Sunday, 16 July - Afternoon

	<i>Pecos</i>		<i>San Marcos</i>	ROOM
	LFC PHYSIOLOGICAL PERFORMANCE IV		SNAKE BIOLOGY I	SESSION/ SYMPOSIUM
	Warren Burggren		Jeffrey Streicher	MODERATOR
		912	Eric Januszkiewicz*, Nicole Chinicci Optimization of a Multiplex PCR Analysis for Crotalus horridus	1:30 PM
419	Prescilla Perrichon*	734	Jeffrey Streicher*, John Wiens Phylogenomic Analysis of More than 4000 Nuclear Loci Resolves a Difficult Branch of Squamate Reptile Phylogeny	1:45 PM
	Behavioral Tools for Assessing Neurophysiological Performances in Fish Early Life Stages	648	Michael Dreslik*, Christopher Petersen, Scott Goetz, John Kleopfer, Alan Savitzky Factors affecting the movements of Timber Rattlesnakes (Crotalus horridus) from the Mid-Atlantic Coastal Plain	2:00 PM
		892	Matt Charnock* A Window into the Limbless Giants of Papua Island (New Guinea)	2:15 PM
	Discussion: Physiology	529	Cara Smith*, Stephen Mackessy The Effects of Hybridization on Divergent Venom Phenotypes: Characterization of Venom from Crotalus scutulatus scutulatus x C. oreganus helleri Hybrids	2:30 PM
		412	Jacob Scribner, Matthew Kwiatkowski* Facial Stripes Influence Attack Frequency on Snake Models	2:45 PM
<b>BREAK - Plaza Foyer</b>				3:00 PM
			SNAKE BIOLOGY II/ SNAKE GENOMICS	SESSION/ SYMPOSIUM
			Bob Brodman	MODERATOR
		117	Kyle O'Connell*, Eric Smith, Matthew Fujita Species delimitation of North American whipsnakes and the effects of missing SNP data on phylogenetic analyses	3:30 PM
		286	Bob Brodman* Comparison of Mark-Recapture Methods for Snakes	3:45 PM
		323	Dalton Neuharth*, Connor Adams, Shelby Frizzell, Wade Ryberg, Toby Hibbitts, Josh Pierce, Craig Rudolph, Timothy Johnson A Novel Method of Snake Detection Using Time-lapse Triggered Camera Traps	4:00 PM
		705	Bradley T. Martin*, Marlis R. Douglas, Andrew T. Holycross, Stephen P. Mackessy, Michael E. Douglas Population Genomics of the Western and Desert Massasaugas (Sistrurus catenatus tergeminus and S. c. edwardsii)	4:15 PM
				4:30 PM
				4:45 PM
				5:00 PM

\* denotes presenter

# Poster Session I - Friday, 14 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
1	19	SH-Meredith Swartwout*, J. D. Willson	Disentangling Mechanisms of Decline for Litter Lizards at La Selva Biological Station, Costa Rica
2			
3	177	SH-K.H. Wild*, C.M. Gienger	Between-year Repeatability of Locomotor Performance of Eastern Fence Lizards
4	200	SH-Kelsey Reider*, Maureen Donnelly	Wide Thermal Range and Frost Tolerance in a High-Elevation Andean Frog
5	233	SH-Alice Millikin*, Sarah Woodley, Drew Davis, Jim Anderson	Factors Influencing Salamander Hormones in Created Wetlands
6	280	SH-Andy Mueller*, C.M. Gienger	Comparative Thermal Ecology of <i>Agkistrodon contortrix</i> and <i>Agkistrodon piscivorus</i>
7	306	SH-Jenny Sutherland*, David Mifsud, Maegan Stapleton, Amber Stedman, Edward Roseman, James Boase, Andrew Briggs, Justin Chiotti, Katherine Greenwald	Use of eDNA and Occupancy Modeling to Predict the Presence of Mudpuppies ( <i>Necturus maculosus</i> ) Along the St. Clair-Detroit River System
8	377	SH-Simon Scarpetta*, David Ledesma	Cranial Osteology of Extinct and Extant Gerrhonotine Lizards
9	400	SH-Hayley Crowell*, Emily Taylor	Comparative Thermal Ecology of Coastal and Inland Populations of Southern Pacific Rattlesnakes ( <i>Crotalus helleri</i> )
10	416	SH-Emily Asp*, Eric Koepfler, H. Erin Rickard, Louis Keiner, Scott L. Parker	The Effect of Artificial Light on Orientation of Hatchling Loggerhead Sea Turtles ( <i>Caretta caretta</i> )
11	562	SH-Patricia Faulkner*, David Hala, Lene Petersen	Physiological Effects of Salt Stress on Juvenile American Alligators ( <i>Alligator mississippiensis</i> )
12	573	SH-Emily Sanchez*, Christopher R. Tracy	Effects of Sex and Season on Thermoregulatory Activity of Common Chuckwallas, <i>Sauromalus ater</i>
13	600	SH-Milinda Thompson*, Tracy Langkilde, Christopher R. Tracy	Effect of Water Restriction on Corticosterone in the Herbivorous Lizard, <i>Dipsosaurus dorsalis</i>
14	687	SH-Averil Royal*, Natalie Claunch, Mason DuBois, Kathleen Ivey, Elina King, Emmeleia Nix, Kiley Rucker, Tanner Shea, John Stepanek, Sunny Vansdadia, Emily Taylor	Body Size Effect on Thermal Tolerance in Certain Species of <i>Sceloporus</i>
15	730	SH-Karem López*, Rebecca Tarvin, Santiago Ron, Mileidy Betancourth, Adolfo Amézquita, David Cannatella	Is <i>Epiplatys boulengeri</i> a Species Complex? Molecular Phylogeny of an Inconspicuous Poison Frog
16	751	SH-Clay Laughrey*, Carmen Montana, Christopher Schalk, Kelsey Kralman	Distribution of Larval Amphibians Along Environmental Gradients in Pond Microhabitats
17	908	SH-Kiley Rucker*, Adam Aslam, Natalie Claunch, Mason DuBois, Kathleen Ivey, Elina King, Emmeleia Nix, Averil Royal, Tanner Shea, John Stepanek, Sunny Vansdadia, Emily Taylor	Testing the Effect of Blood Oxygen Carrying Capacity on Thermal Tolerance in Lizards
18	842	SI-McKenna Bristow*, Caitlin Gabor, Mar Huertas	Characterization of sex pheromone response in <i>Poecilia latipinna</i>
19	396	SI-Paul D'Ortona*, Grace Kocubinski, Rebecca Daub, Scott McRobert	The Effect of Gender on Shoaling Behavior in Guppies ( <i>Poecilia reticulata</i> )
20	865	SI-Natasha Hinojosa*, Matthew Gilg	Genetic Assessment of the Hybrid Zone Between the Mummichog and Gulf Killifish
21	523	SI-C. Elyse Parker*, Wilfredo Matamoros, Caleb D. McMahan, Diego Elías, Kyle R. Piller	Phylogeography and population genetic structure of <i>Profundulus hildebrandi</i> (Profundulidae), a microendemic from southern Mexico
22	546	SI-Diego Elias*, Fernando Alda, Alexandria Adams, Prosanta Chakrabarty	Comparative Phylogeography of the Green Swordtail ( <i>Xiphophorus helleri</i> ) and the Common Platy ( <i>Xiphophorus maculatus</i> ) across Middle America
23	364	SI-Anna Gruszkiewicz*, Kyle Piller	Analysis of Body Size Evolution and Diversification Rates in the Subfamily Poeciliinae
24	662	SI-Dustin Thomas*, Brook Fluker	Analysis of body shape variation among restricted and widespread populations of the Southern Redbelly Dace, <i>Chrosomus erythrogaster</i>

\* denotes presenter

SH = ASIH Storer Herpetology

SI = ASIH Storer Ichthyology

# Poster Session I - Friday, 14 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
25	645	SI-Kandria Driskill*, Kyle Dineen, Brook Fluker	Body shape variation within and among lineages of the Rainbow Darter, <i>Etheostoma caeruleum</i>
26	561	SI-Cragen King*, Philip A. Hastings, Adam Summers, Samuel P. Iglesias, Kevin W. Conway	Clingfishes Tree of Life
27	676	SI-Zachary Sperstad*, Peter Berendzen, Andrew Simons, Jonathan Armbruster, Emily Lemmon, Alan Lemmon	Phylogenomics of Catostomidae
28	284	SI-D. Cooper Campbell*, James Erdmann, Courtney Weyand, Anna Gruszkiewicz, Zach Nikolakis, Elyse Parker, Jerry Kattawar, Kyle Piller	Forensic ichthyology: Identifying the type basin of <i>Bryconops affinis</i> (Characiformes: Iguanodectidae)
29	176	SI-Amanda Pinion*, Kevin Conway	A new terminology for cranial tubercles demonstrated using multiple species and genera of North American Minnows (Teleostei: Cyprinidae)
30	696	SI-Emily Olson*, Matthew Davis	The Widespread Evolution of Fangs in Ray-finned Fishes
31	621	SI-Katherine Bemis*, James Tyler, William Bemis, Kishor Kumar, Rajendra Rana, Thierry Smith	A Gymnodont Fish Jaw with Remarkable Molariform Teeth from the Early Eocene of Gujarat, India (Teleostei, Tetraodontiformes)
32	258	SI-Diego Vaz*, Eric Hilton	Title: Morphological Variation of the Swimbladder of Toadfishes (Percomorphacea: Batrachoidiformes)
33	235	SI-Pedro P. Rizzato*, Flávio A. Bockmann, Eric J. Hilton	'Say my name': a review of the nomenclature of the cranial bones in Polypteridae (Cladistii: Polypteriformes)
34	539	SI-Lauren Naylor*, Joshua Drew	Anthropogenic Influence on Mangrove-dependent Fisheries in Fiji
35	395	SI-T. Kelly Brown*, Joel Trexler	From Alpha to Beta: Quantifying Metacommunity Dynamics through Diversity Analysis
36	324	SI-Derek Bolser*, Erin Reed, Mark Lopez, Brad Erisman	Considerations for individual growth modeling in exploited fishes: a case study with the gulf corvina ( <i>Cynoscion ophionopterus</i> )
37	84	SI-Kelsi Rutledge*	Nekton Utilization of Created and Natural Intertidal <i>Crassostrea virginica</i> Reefs
38	585	SI-Lindsey Martin*, Brook Fluker	Effects of Black-spot Disease on the Body Condition of Bleeding Shiners, <i>Luxilus zonatus</i>
39	349	Larissa Pereira, SI-Friedrich Keppeler*, Angelo Agostinho, Kirk Winemiller	Is There a Relationship between Fish Cannibalism and Latitude or Species Richness?
40	351	SI-Steven Ferguson*, Shannon Smith, Ronald Lowe, Robert Colombo, Devon Keeney	Impact of Low-Head Dams on the Genetic Structure of Fish Populations in Two Illinois Rivers
41			
42	704	SI-Jeffrey Plumlee*, Jay Rooker, Brooke Shipley, David Wells	Feeding ecology of reef fishes utilizing fatty acid and stable isotope biomarkers
43	742	SI-Alany Pedrosa Gonçalves*, Victória Judith Isaac	Seasonal and Spatial Changes in the Abundance of an Endemic Tropical Fish, Before a Big Dam
44	575	SI-Luke Bower*, Kirk Winemiller	Fish assemblage convergence along environmental gradients and microhabitats in small freshwater streams
45	346	SI-Adania Flemming*, Lawrence Page	North versus South: a comparative life history study of the Swamp Darter, <i>Etheostoma fusiforme</i>
46	753	SI-Shelby Smith*, Devin D. Bloom	Evolutionary Ecology of Great Lakes alewives ( <i>Alosa pseudoharengus</i> ): a Population Genetic and Morphometric Analysis
47	112	SSAR:PM-Erin Crandall*, Christopher Rowe	Metabolic Response of Larval <i>Lithobates sphenoccephalus</i> and <i>Hyla chrysoscelis</i> to Increased Temperatures
48	130	SSAR:PM-Allison Litmer*, Chris Murray	The Critical Thermal Capacity of Dispersal: Comparative Niche Breadth Among Populations of Mediterranean Gecko ( <i>Hemidactylus turcicus</i> )
49	281	SSAR:PM-Mike Iacchetta*, C. M. Gienger	Endocrine Stress Response of Eastern Fence Lizards to Fire-altered Landscapes
50	507	SSAR:PM-Elizabeth Glynn*, Juan D. Daza, Aaron M. Bauer	Alternative configurations of the lacrimal foramen in geckos
51	549	SSAR:PM-Drew Davis*, Travis LaDuc, Gregory Pauly	Morphological Variation Between Two Widely Distributed Populations of <i>Plethodon albagula</i> (Caudata: Plethodontidae)
52	564	SSAR:PM-Mariah Cardoza*, Samantha Hughes, Jennifer Deitloff	Effect of Silver Nanoparticles on Tadpoles of <i>Xenopus laevis</i>
53	869	SSAR:PM-Steven Gardner*, Scott Goetz, Mary Mendonca	Assessing Immunocompetence in Anurans: Validation of a modified in Vitro Assay Measuring Innate and Cell-Mediated Responses
54			
55	231	SSAR:EGS-Daniel F. Hughes*, Lukwago Wilber, Mathias Behangana, Michele Menegon, J. Maximilian Dehling, Jan Stipala, Colin R. Tilbury, Krystal A. Tolley, Chifundera Kusamba, Eli Greenbaum	From the Floor, to the Canopy: Comparative Phylogeography of Two Sympatric Chameleon Species in Central Africa's Albertine Rift

\* denotes presenter

SI = ASIH Storer Ichthyology

SSAR: PM = SSAR Victor Hutchison Student Poster Award: Physiology & Morphology

SSAR: EGS = SSAR Victor Hutchison Student Poster Award: Evolution, Genetics, & Systematics

# Poster Session I - Friday, 14 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
56	607	SSAR:EGS-Panupong Thammachoti*, Utpal Smart, Amir Hamidy, Irvan Sidik, Nia Kurniawan, Eric Smith	Molecular Systematics, Species Delimitation and Divergence Time Estimates of The Common Sun Skinks (Scincidae: Eutropis multifasciata [Kuhl, 1820]) from Java and Sumatra
57	647	SSAR:EGS-Nicole Witzel*, Ali Taheri, William Sutton	Development of an Environmental DNA Protocol to Detect and Quantify Streamside Salamanders ( <i>Ambystoma barbouri</i> ) in Low-order Streams of Middle Tennessee
58	857	Tonia S. Schwartz, SSAR:EGS-Randy L. Klabacka*, Dawn Reding, Anne M. Bronikowski	Targeted sequence capture for functional population genomics of genetic networks
59	59	SSAR:ENHDB-Andrew Powers*, Tim J. Karels	Effect of Habitat Fragmentation on Snakes in the Southern California Chaparral
60	120	SSAR:ENHDB-Cynthia Morris*, Matthew Lattanzio	Ecological and Physiological Factors Affecting the Escape Responses of Tree Lizards ( <i>Urosaurus ornatus</i> )
61	159	SSAR:ENHDB-Sky Button*	Using Species Distribution Models to Predict Climate Change Impacts on a Unique Evolutionary Arms Race
62	162	SSAR:ENHDB-Eric Nordberg*, Lexie Edwards, Lin Schwarzkopf	Terrestrial Invertebrates as Formidable Predators of Vertebrates: An Underestimated Guild
63	194	SSAR:ENHDB-Jessica McQuigg*, Michelle Boone	Examining the Effect of Host Condition and Temperature on Interactions between Amphibian Chytrid Fungus and Native Anurans
64	237	SSAR:ENHDB-Samantha Wesnak*, Todd Pierson, Jennifer Deitloff	Mating Behaviors of <i>Eurycea wilderae</i>
65	297	SSAR:ENHDB-Jeanette Moss*, Aumbriel Schwirian, Anna Jackson, Mark Welch, Glenn Gerber	Multiple-paternity in an insular lizard, the Sister Islands rock iguana ( <i>Cyclura nubila caymanensis</i> )
66	333	SSAR:ENHDB-Marissa Ganzfried*, Carl Anthony, Cari-Ann Hickerson, Jennifer Deitloff	Comparison of Cranial Morphology in a Color Polymorphic Salamander
67	344	SSAR:ENHDB-Decio Correa*, Denise Rossa-Feres, Ricardo Sawaya	Metacommunity Structure of Tadpoles and Adult Anurans: Integrating Traits, Space, Environment, and Evolutionary History
68	389	SSAR:ENHDB-Harrison Goldspiel*	Spatial and Historical Drivers of Pool-Breeding Amphibian Abundances in a Central New York Forest
69	426	SSAR:ENHDB-Carolyn Reiland-Smith*, Jon Moore	Seed Dispersal of Native Drupe Bearing Plants by Gopher Tortoises ( <i>Gopherus polyphemus</i> )
70	432	SSAR:ENHDB-Christian McNabb*, Megan Novak, Scott L. Parker	A comparative analysis of microhabitat use by the southern copperhead ( <i>Agkistrodon contortrix contortrix</i> ) between a fragmented and non-fragmented environment in Horry County, SC
71	480	SSAR:ENHDB-Matthew Metcalf*, Wendy Brosse, John Herman	Population Dynamics of the Eastern Diamondback Rattlesnake ( <i>Crotalus adamanteus</i> ) on Florida Gulf Coast University's Campus
72	722	SSAR:ENHDB-Rachel Alenius*, Dean Williams	Variable Diet of an Ant Specialist, the Texas Horned Lizard ( <i>Phrynosoma cornutum</i> ), Living in Small Texas Towns
73	725	SSAR:ENHDB-Brian Folt*	Knives for a Pro? Prepollical Spines of the Glassfrog <i>Teratohyla spinosa</i> as a Sexually Dimorphic Weapon
74	206	SSAR:CM-Jillian Josimovich*, Monica Matthews, Jessica Hinson, Michael Ravesi, Sasha Tetzlaff, Bruce Kingsbury	First Assessment of Soft-release Translocation of Wild-caught Snakes
75	357	SSAR:CM-Zachary J. Marcou*, Josh B. Pierce, D. Craig Rudolph, Stephen J. Mullin	Detection and Activity Patterns of Snakes in Large Parcels of Contiguous Habitat
76	677	SSAR:CM-Jennie Mook*, Raymond Moody, Eric Schaubert	Harmonic Radar: Long-Term Herpetofauna Tracking Using a Tiny Tag
77	708	SSAR:CM-Jason Myrand*, Erika Nowak	Microhabitat Use of Northern Mexican Gartersnakes ( <i>Thamnophis eques megalops</i> ) in an Intermittent Stream near Central Arizona
78	760	SSAR:CM-Brian Blais*, John Koprowski	Tools of the Trade: Herpetofauna as Models for Conservation
79	844	SSAR:CM-Jillian Newman*, Kyle Barrett	Distribution and Occupancy of Green Salamanders in South Carolina
80	291	Janelle Espinoza*, Jaime Alvarado-Bremer	Population Structure of Gulf Killifish ( <i>Fundulus grandis</i> ) Along the Northern Gulf of Mexico Coast Using Mitochondrial DNA Sequencing
81	376	Brett Longwith*, Brooke Bedal, Mollie F. Cashner	Utility of Eight Microsatellite Loci in Population Genetic Analyses of Southern Redbelly Dace, <i>Chrosomus erythrogaster</i>
82	381	Alexander Semchenko*	Phylogeny of the genus <i>Thymallus</i> (graylings) using complete mtDNA
83	592	Trevor Krabbenhoff*, Thomas Dowling	Development of Genetic Markers for Sex Determination, Parentage Assessment, and Population Genetics of Razorback Sucker, <i>Xyrauchen texanus</i> (Cypriniformes: Catostomidae)
84	702	Kevin Kingsland*, Brian Small, Michael Lydy, Edward Heist	Effects of heat stress on growth rate in juvenile Missouri River pallid sturgeon ( <i>Scaphirhynchus albus</i> ) from different thermal regimes
85	881	Jan McDowell*, Heidi Brightman	A genetic-based investigation of blue-line tilefish ( <i>Caulolatilus microps</i> ) A genetic-based investigation of blue-line tilefish ( <i>Caulolatilus microps</i> )
86	57	Hyo Jae Yu*, Jin-Koo Kim	Is the Family Sebastidae (Pisces, Scorpaenoidei) Monophyletic According to Molecular Data?

SSAR: EGS = SSAR Victor Hutchison Student Poster Award: Evolution, Genetics, & Systematics

\* denotes presenter

SSAR: ENHDB = SSAR Victor Hutchison Student Poster Award: Ecology, Natural History, Distribution, & Behavior

SSAR: CM = SSAR Victor Hutchison Student Poster Award: Conservation & Management

# Poster Session I - Friday, 14 July

POSTER #	Abstract #	Presenter	Title
87	133	Sam Ghods*, James Orr, Ingrid Spies, Duane Stevenson	Next-Generation RAD Sequencing of 22 Species among 10 genera of Snailfishes (Liparidae)
88	196	Milton Tan*, Jonathan Armbruster	Diagnosing Effects of Systematic Error and Phylogenetic Signal in Phylogenomics: A Case Study on the Order Cypriniformes
89	625	Rene Martin, Matthew Davis*	Repeated Evolution of Heterodonty in Lanternfishes (Teleostei: Myctophiformes)
90	752	Kevin Tang*, Hayley Schroeder, Rand Daboul	Phylogenetic Relationships of Rabbitfishes (Teleostei: Siganidae)
91	139	Michael Ghedotti*, Josephine Gruber, Ryan Barton, W. Leo Smith, Matthew Davis	Morphology of the glowbelly (Acropoma) bioluminescent organ (Teleostei: Acropomatidae)
92	131	William Blair*, Stefan van der Voort, David Edds	Morphological Analysis of Badis (Osteichthyes: Badidae) from Nepal
93	418	Samantha Burke*, Katherine E Bemis, William E Bemis	Development and Replacement of Oral Teeth in Balistidae and Monacanthidae (Tetraodontiformes)
94	458	Katie Nickles*, Yinan Hu, John Majoris, Peter Buston, Jacqueline Webb	Ontogeny of the Lateral Line System in a Caribbean Reef Goby, <i>Elacatinus lori</i>
95	626	Leo Smith*, Chesney Buck, Sarah Gibson, Matthew Davis, Rene Martin, Matthew Girard	Techniques for the Improved Visualization of Vertebrate Anatomy
96	895	Michael Pauers*	What Exactly Is <i>Labeotropheus curvirostris</i> (Ahl 1927)?
97	520	Brittany L. McCall*, Brook L. Fluker	Status Survey and Conservation Genetic Assessment of the Paleback Darter, <i>Etheostoma pallidiorsum</i>
98	413	Mindy Dang*, Kevin W. Conway	An undescribed species of <i>Parachilognis</i> (Siluriformes: Sisoridae) from Nepal
99	80	Kyle Mara*, Avi Kaplan, Michael Balsai, Jennifer Cromley, Tony Perez, Ting Dai, Yona Davidson	How Instructors Can Enhance Biology Students' Motivation, Learning, and Grades Through Brief Relevance Writing and Worked Examples Interventions
100			
101	703	Jason Parks*, Peter Berendzen	A comparison of the population genetic structure of the rainbow darter, <i>Etheostoma caeruleum</i> , in glaciated and unglaciated environments
102	497	Carmen G. Montana*, Elford Liverpool, Donald C. Taphorn, Hernán López-Fernández, Karen Alofs	Trophic relationships and mercury levels in a Neotropical river food web
103	82	Courtney King*, Sebastián Hernández	You're gonna need a better software: evaluating morphological and genetic approaches used to identify shark fins
104	540	Murilo Pastana*, Alessio Datovo, David Johnson	Phylogeny of the Stromateiformes (Teleostei: Percomorphacea) based on morphological data
105	555	Yasmin Quintana Morales*, Christian Barrientos	Fish assemblages associated with macrophyte patches in lakes of Guatemala
106			
107	267	Rachel Keeffe*, Eric Hilton, Cristina Cox Fernandes	Morphology and Osteology of Cranial Sexual Dimorphism in the Amazonian Electric Knifefish <i>Compsaraia samueli</i>
108	108	José Novaes*, Camila Bezerra, Rodrigo Costa, Danielle Peretti	Decrease in Reservoir Levels Induced by Prolonged Drought as a Threat to Fish Species of Different Trophic Guilds in a Tropical Semi-Arid Environment
109	253	Stuart Willis*, David Saenz, Gang Wang, Christopher Hollenbeck, James Cai, David Portnoy, Kirk Winemiller	RNA-seq analysis to decipher mechanisms of osmoregulatory adaptation to divergent physicochemical conditions and its role in diversification of Amazon fishes
110	464	Jonathan Armbruster*, Nathan Lujan, David Werneke, Devin Bloom	The <i>Characidium declivirostre</i> group with description of two new species (Characiformes: Crenuchidae)
111	544	Breanna DeGroot*, Kim Bassos-Hull, Michael McCallister, Matthew Ajemian	Movement and habitat use of Spotted Eagle Rays, <i>Aetobatus narinari</i> , throughout Florida
112	681	Shannon Murphy*, Mark Erdmann, Joshua Drew	Satellite Tracking Reef Manta Rays ( <i>Manta alfredi</i> ) in Papua New Guinea to Inform Conservation Management
113			
114	63	Hua Hsun Hsu*, Zahid M. Nazeer, Yu Jia Lin, Premjal Panickan	Elasmobranch diversity in Saudi Arabian waters of the Arabian Gulf
115	670	Matthew Ajemian*, Michael McCallister, Adam Schaefer	Elasmobranchs in peril? Shark and ray assessment in the southern Indian River Lagoon
116	694	Joshua Zacharias*, Robert Cerrato, Michael Frisk	Habitat Preference and Spatial Interactions of the NW Atlantic Skate Complex
117	288	Walker Nambu*, Guillaume Rieucou, Jose Carlos Castillo Montoya, Marianne Porter, Stephen Kajjura	Quantification of shoaling tendency and context-dependent collective behavior of blacktip sharks ( <i>Carcharhinus limbatus</i> ) during seasonal aggregations in Southeast Florida

\* denotes presenter

# Poster Session I - Friday, 14 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
118	257	<b>Philip Match*</b> , John Mohan, Jeffrey Plumlee, Tom TinHan, R.J. David Wells, Mark Fisher	Factors shaping the co-occurrence of two juvenile shark species along the Texas Gulf Coast
119	425	<b>Kayla Hall*</b> , Peter Hundt, Karen Crow, John Swenson	Diamonds are a ray's best friend: a redistribution of fin rays is associated with a shift to the pelagic environment in myliobatids
120	327	<b>Joshua Cullen*</b> , Christopher Marshall	Morphological Changes in Shark Teeth May Facilitate Ontogenetic Dietary Shifts
121	186	<b>Jasmin Graham*</b> , Gavin Naylor	Evolutionary Relationships of Hammerhead Sharks (Sphyrnidae): Reconciling Signals Across Anatomical and Molecular Data
122	731	<b>Kristene Parsons*</b> , Jan McDowell, Heidi Brightman, Eric Hilton, Robert Latour	Two new species of Butterfly Ray (Myliobatiformes: Gymnuridae) from the U.S. Atlantic and Gulf of Mexico coasts
123	242	<b>Silvina Izzo, Gabriela Andreoli, Daniel E. Figueroa*, Marcela Costagliola</b>	Molecular Characterization Of Sympatric Skates Dipturus and Zearaja From Argentine Sea Based On DNA Barcode
124			
125	334	<b>Erica Knowles Atkins*</b> , R.J. David Wells, Jaime Alvarado-Bremer	Genetic Diversity of the Bull Shark in the Gulf of Mexico Inferred from Mitochondrial DNA
126	332	<b>Brianna Ladd*</b> , Jaime Alvarado-Bremer	Microsatellite Discovery in the Common Shovelnose Ray ( <i>Glaucoctegus typus</i> ) using Massive Parallel Sequencing Data
127	132	<b>Kristin Palmrose*</b> , James Gelsleichter	Reproductive Endocrinology of the Blacktip Shark, <i>Carcharhinus limbatus</i> , off the Southeastern U.S. Coast
128			
129	861	<b>Jeremy Higgs*</b> , Jill Hendon, Eric Hoffmayer, Chris Butler	Offshore Diet of the Atlantic Sharpnose Shark, <i>Rhizoprionodon terraenovae</i> , from the northern Gulf of Mexico
130	119	<b>Mauro Belleggia*, Agostina Villa, Jorge Colonnello, Daniel E. Figueroa, Agustin Giberto, Claudia Bremec</b>	Let's Go Hunt: The Diet of The Narrowmouthed Catshark <i>Schroederichthys bivius</i> , from the Patagonian Continental Shelf
131			
132	353	<b>Jessica Dutton*</b> , Brian Jackson, Diego Cardenosa, Andrew Fields, Demian Chapman	Trace Element Concentrations in Shark Fin Soup and Dried Shark Fins
133	453	<b>William E. Bemis*</b> , Eric J. Hilton, Gavin J. P. Naylor	Anatomy of the Smalltooth Sand Tiger ( <i>Odontaspis ferox</i> ) and notes on the evolution of Lamniformes: Results from a dissection party
134	605	<b>Jim Wharton*</b> , Sandra Elvin, Debborah Luke	Unified Conservation Messaging for Zoos and Aquariums
135	461	<b>Filip Osaer*</b> , Krupskaya Narváez	HAMMERHEAD SHARK RESEARCH: Knowledge from the populations in the Canary Islands
136	310	<b>Karyl Brewster-Geisz*, Guy DuBeck, Delisse Ortiz, John Carlson, Simon Gulak, Alyssa Mathers, Michael Enzenauer</b>	The Atlantic Shark Research Fishery: a Success in Fisheries Management
137	840	<b>C-Cassandra L. Ruck*, Nicholas J. Marra, Michael J. Stanhope, Mahmood S. Shivji</b>	Global Population Genomics of the Great Hammerhead Shark, <i>Sphyrna mokarran</i>
138	51	<b>C-James Anderson*</b>	Functional Use of Magnetic Information in Shark Navigation Behaviors
139	362	<b>C-Beth Bowers*</b> , Stephen Kajiura	Warming Oceans Shift Migratory Range of the Blacktip Shark
140	365	<b>C-Kelsey Spencer*, Daniel Abel, Derek Crane, Neil Hammerschlag, Erin Burge, Caroline Collatos, Matt Larsen</b>	Coastal Shark Movements near Fishing Piers along the NE Coast of South Carolina: Early Results
141	172	<b>C-Rachel Skubel*, Neil Hammerschlag, Yannis Papastamatiou, Jodie Rummer</b>	From biochemistry to biotelemetry: An integrative framework for indicators of elasmobranch response to climate change
142	700	<b>Sarah Luongo*</b> , Christopher Lowe	Modeling the Effects of ENSO Events on the Metabolic Costs of the CA Horn Shark, <i>Heterodontus francisci</i>
143	232	<b>C-Katherine E. Schweiss*, J. Marcus Drymon, Toby S. Daly-Engel, Nicole M. Phillips</b>	Development of environmental DNA techniques to assess habitat usage in bull sharks ( <i>Carcharhinus leucas</i> )
144	615	<b>C-Samantha Leigh*</b> , Donovan German	The Resource Acquisition Strategies of Seagrass-eating Bonnethead Sharks
145	305	<b>C-Kady Lyons*</b> , Katherine Wynne-Edwards	Gestational Steroid Hormone Profiles in Plasma and Histotroph of Pregnant Stingrays: Indications of Embryonic Steroid Synthesis Early in Development
146	569	<b>C-Cody Nash*</b> , Jill Hendon, Toby Daly-Engel	Reproductive periodicity and the frequency of multiple paternity in the finetooth shark, <i>Carcharhinus isodon</i> , in the Northern Gulf of Mexico
147	795	<b>C-Brian Moe*</b> , Charles Cotton	Estimates of age, growth, and maturity for the little gulper <i>Centrophorus cf. uyato</i> in the Northern Gulf of Mexico
148	342	<b>Matthew Kolmann, C-Kyle Newton*, Adam Summers</b>	Diffusible Iodine Contrast Enhanced micro-CT scanning as a method to visualize soft tissue anatomy in elasmobranch fishes
149	804	<b>C-John Swenson*</b> , Karen Crow	How the Devil Ray got its horns: developmental staging of Myliobatid embryos

C = AES Carrier

\* denotes presenter

# Poster Session I - Friday, 14 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
150	641	<b>Brianna Hall*</b> , Nick Wegner, Christine Bedore	Quantifying the potential for cranial endothermy in batoid fishes: A comparative study
151	876	<b>Callie Ingram*</b> , Jim Gelsleichter	Effects of the Deepwater Horizon Oil Spill on Reproduction of Deep Sea Sharks
152	148	<b>Brittany Minnig*</b> , James Gelsleichter, Dean Grubbs	Plasma 8-hydroxy-2'-deoxyguanosine as a Biomarker of PAH Exposure in Gulper Sharks, <i>Centrophorus granulosus</i> , Exposed to the Deepwater Horizon Oil Spill
153	325	<b>Shannon Kuznar*</b> , Hector Guzman	Variation in Sensory Morphology of Scalloped Hammerhead Sharks <i>Sphyrna lewini</i> and Trophic Implications
154	524	<b>Casey Zender*</b> , James Gelsleichter	Exploration of Plasma Indicators for Predicting Post-Release Mortality in the Blacktip Shark ( <i>Carcharhinus limbatus</i> )

\* denotes presenter



# Poster Session II - Saturday, 14 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
1	248	SH-Betsie B. Rothermel*, Ethan J. Royal	Driven by Extremes: Pond Community Structure on an Ancient Sand Ridge in Florida
2			
3	871	Allison Welch*, Amber Ruby, Emily Beam	Salinity Tolerance Across Life Stages in Southern Toads, <i>Anaxyrus terrestris</i> : Transitions and Carryover Effects
4	215	Dana Drake*, Britt Ousterhout, Jarrett Johnson, Thomas Anderson, Chris Shulse, Kenton Lohraff, William Peterman, Tracy Rittenhouse, Betsie Rothermel	Amphibian Community Composition in Missouri Ponds
5	846	Michelle Boone*, Samantha Rumschlag, Amelie Davis, Melissa Youngquist	The impact of land use on amphibian presence in human-dominated systems: Does increased cultivation reduce amphibian presence on the exurban landscape
6	97	Chris Distel*	Exotic armored catfish may reduce survival and growth of native amphibians
7	918	Travis Ryan*	Timing of Breeding Migrations and Metamorphosis: The Lasting Impact of Ray Semlitsch's Early Career Research
8	164	Brittany Ousterhout*, William Peterman, Thomas Anderson, Dana Drake, Jacob Burkhardt, Freya Rowland, Raymond Semlitsch	Are hot-spots consistent? Spatiotemporal variation and annual synchrony in larval abundance of pond-breeding salamanders
9	666	Jacob Burkhardt*, Chelsey Kroese, Raymond Semlitsch, Lori S. Eggert	Genetic Diversity of the Ringed Salamander ( <i>Ambystoma annulatum</i> )
10	701	B-Polly Hajovsky*, Michelle Bromschwig, Simon Geist	Evaluation of Microplastic Pollution in Texas' Coastal Bays and Influence on Larval Food Web
11	735	B-Michelle Bromschwig*, Polly Hajovsky, Simon Geist	Comparing the Ichthyoplanktonic Food Web Near Three Coastal Inlets in the Texas Coastal Bend
12	848	B-Melissa Drown*, Delan J. Boyce, Ehren A. Habeck, Matthew Poach, R. Christopher Chambers	Plasticity of Responses to High CO <sub>2</sub> in Early Life Stages of Atlantic Silverside, <i>Menidia menidia</i>
13	890	Megan Human, Noelle Bowlin*, Andrew Thompson, William Watson, Ed Weber	New Developments in Temperature-Dependent Incubation in Pacific Sardine Eggs Compared with Historical Estimates
14			
15	757	Darrel E. Snyder*, C. Lynn Bjork	Larvae and Early Juveniles of Rio Grande Chub and Rio Grande Sucker
16	557	Klaus B. Huebert*, R. Christopher Chambers, Kenneth A. Rose	Modeling Cumulative Effects of Ocean Acidification and Warming on Winter Flounder Populations
17			
18	515	Steve Porter*, Annette Dougherty, Janet Duffy-Anderson,	Development and phenotypic variation in first feeding larvae of sablefish ( <i>Anoplopoma fimbria</i> )
19	424	Prescilla Perrichon*, Edward Mager, Christina Pasparakis, John Stieglitz, Daniel Benetti, Martin Grosell, Warren BURGREN	Temperature Influence upon Cardiotoxicity of Deepwater Horizon in Larval Mahi-mahi ( <i>Coryphaena hippurus</i> )
20	317	Wael Kouched*, Abdallah Hattour	Spatial Distribution of Tuna Larvae in The Tunisian Waters in Relation With Environmental Parameters
21	182	Marta Moyano*, Björn Illing, Lars Christiansen, Myron A. Peck	Linking Rates of Metabolism and Growth in Marine Fish Larvae
22	239	Marta Moyano, Joan Martorell, Katrin Engler, Myron A. Peck*	Thermal Impacts on the Ontogeny of Routine Swimming and Foraging Behavior in Atlantic Herring Larvae
23	271	Amy George*, Tatiana Garcia, Benjamin Stahlschmidt, Duane Chapman	Comparison of swimming speeds in larval bighead, silver, and grass carp
24	160	Ayesha Akram, Muhammad Rais*	Taxonomic Review, Revised checklist and Photographic Identification Guide of Frogs (Family Dicroglossidae) of Sub-tropical scrub and Pine Forest (District Rawalpindi and Islamabad Capital Territory), Pakistan
			* denotes presenter

# Poster Session II - Saturday, 15 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
25	628	Emma Sutton*, Anna Savage, Kate Mansfield, Matthew Lawrance	A comprehensive approach to surveillance, epidemiology and genetic analyses of Chelonid Fibropapilloma-associated Herpesvirus in marine turtles
26	818	Dana Leigh, David Mifsud, Maegan Stapleton, Katherine Greenwald*	Genetic Diversity and Effective Population Size of Mudpuppy Salamanders ( <i>Necturus maculosus</i> ) in the St. Clair-Detroit River System
27	805	Cassandra M. Modahl, Stephen P. Mackessy*	Unusual sources of mRNA: snake venoms
28	822	Kiernan Oknefski*, Alexa Trujillo, Matthew Lawrance, Anna Savage	Impact of Genetic Structure on Pathogen Dynamics in North American Ranid Frogs
29	904	Neha Savant*, Matthew Palmer	Genetic Structure of the Long-tailed Salamander, <i>Eurycea lonigcauda lonigcauda</i>
30	222	Kyle Javenes, James Spotila, Laurie Mauer*	Sequence Variation of the CytB Gene in American crocodile, <i>Crocodylus acutus</i> , Populations in Pacific Costa Rica
31	265	Tim Mitchell*, Daniel Warner	Seasonal Shifts in <i>Anolis sagrei</i> Reproduction Invoke Challenges for Scientific Reproducibility
32	441	Hannah Wilson*, Erika Nowak, Dustin Wood	Unusual Reproductive Events in <i>Thamnophis rufipunctatus</i>
33	535	Tony Gamble*	Sex chromosome evolution in House Geckos ( <i>Hemidactylus</i> )
34	503	David Rostal*, Wade Carruth, Luke Wyrwich, Robert Hill, Brad Lock	Reproductive patterns in five species of Asian turtles: <i>Manouria impressa</i> , <i>Heosemys depressa</i> , <i>Cuora mccordi</i> , <i>Cuora galbinifrons</i> and <i>Leucocephalon yuwonoi</i>
35	706	Nathan Byer*, Brendan Reid, Richard Seigel, M. Zachariah Peery	Moving beyond apparent success: techniques for analyzing nest survival data
36	474	Elijah Wostl*, Eric Smith	New Species and Phylogeographic Relationships of Sunda Shelf <i>Philautus</i> (Anura: Rhacophoridae)
37	223	Megan Mosier*, Lynda Miller	Population Variation in Two Species of Ambystomatid Salamanders
38	903	Joaquin Villamil*, Luciano J. Avila, Mariana Morando, Raul Manyero, Jack W. Sites, Jr., Arley Camargo	Species limits and divergence times of lizards of the <i>Liolaemus wiegmannii</i> complex (Duméril & Bibron 1837) (Squamata: Liolaemidae)
39	787	Evan Bare*, Andrew Gluesenkamp, Jaime Peña, Jannifer Stabile, Richard Kline	Habitat Requirements and Genetic Comparison of the Black-Spotted Newt in Texas and Mexico
40	169	Brian Waldron*, Shawn Kuchta, Cari Hickerson, Maggie Hantak, Carl Anthony	Genetic Analysis of Distinct Lineages of <i>Plethodon cinereus</i> at a Secondary Contact Zone in Northeast Ohio
41	860	Ruben Tovar*, Paul Gignac, Ron Bonett	Diffusible Iodine-based Contrast-enhanced Computed Tomography (diceCT), a novel approach to the comparative anatomy of degenerate neural structures; examples from the central Texas <i>Eurycea</i>
42	671	Maria C. Vallejo-Pareja*, Juan D. Daza, Jessica A. Maisano, Monte L. Thies	Consequences of Miniaturization in the Cranial Osteology of Lizards and Snakes
43	668	Jordan Hunziker*, Juan D. Daza, Emma Sherratt, Aaron M. Bauer, Wolfgang Böhme, Philip Wagner	A copal gecko from Madagascar
44	147	Landon Allen, Jennifer Deitloff*	Comparing Population and Sex Differences in Head Shape for Four Populations of Red-Back Salamanders ( <i>Plethodon cinereus</i> ) in Pennsylvania
45	717	Alexandre Ascenso*, João Carlos Costa, Ana Lúcia Prudente	Taxonomic revision of the <i>Erythrolamprus reginae</i> complex (Serpentes: Dipsadidae)
46	60	Peter Uetz*, Paul Freed, Jiří Hošek	The Reptile Database: new developments
47	593	Steven Werman*	Aspects of the Cephalic Anatomy of the Bushmaster ( <i>Lachesis</i> ) with Phylogenetic Considerations
48	611	Alex Will*, Julie Cobb, Zachary Gellner, David Rostal	Endocrine influence on signalling in the Central Bearded Dragon ( <i>Pogona vitticeps</i> )
49	570	Clifford Fontenot Jr.*, John Pojman	Self and Conspecific Dermatophagy in the Aquatic Salamander <i>Amphiuma tridactylum</i>
50	505	Ann-Elizabeth Nash*	The Social Network and Evidence for Personality in the Spiny-Tailed Iguana, <i>Ctenosaura similis</i>
51	356	Kenzie Medley*, Alicia Mathis	When Territorial Salamanders Cheat: A Test of the Dear Enemy Phenomenon in Southern Red-backed Salamanders
52	212	Paul Cupp, Jr.*	Polyandry and Polygyny in Green Salamanders, <i>Aneides aeneus</i>
53	582	Shaundon Moore*, Kirsten Nicholson	Linking Habitat Structure with Microgeographic Divergence in Red-backed Salamander ( <i>Plethodon cinereus</i> ) Behavior
54	715	Michelle E. Adcock*, Zachary C. Adcock, J. Steve Godley	Tail loss in Sympatric Sirenid Salamanders from Rainey Slough, Florida
55	699	Nathan Katlein*, Maria Byrne, Ylenia Chiari	Using Video Manipulation and Video Playback to Examine Influence of Color on Communication in Geckos
56	435	Kayla Lauger*, Erika Nowak, Scott Nichols	Preliminary Hematology Assessments in Narrow-headed Gartersnakes ( <i>Thamnophis rufipunctatus</i> )

\* denotes presenter

# Poster Session II - Saturday, 15 July

## Rio Grande Exhibit Hall

57	66	<b>Brad Carlson*</b>	Hormonal Correlates of Personality in Box Turtles
58	905	<b>Luis Burgos*, Emily Taylor</b>	How does recent thermal history affect the critical thermal maximum of the small diurnal lizard, <i>Sceloporus occidentalis</i> ?
59	807	<b>Brad Moon*, Gabriel Spanghero Vicente Ferreira, David Penning</b>	High Performance in a Tight Spot: Snake Predation Pressures Below vs. Above Ground
60	330	<b>Tyleia Prendergast, Lynnette Sievert*</b>	Effects of Digestion on Temperature Selection and Meal Size on SDA in Cornsnakes ( <i>Pantherophis guttatus</i> )
61	318	<b>Dirk Michael Lang*, Maria del Mar Romero-Aleman, Maximina Monzon-Mayor</b>	Axon Regeneration in the Visual Pathway of the Canary Island Lizard, <i>Gallotia galloti</i>
62	460	<b>Luis Bonachea*, Kylie Hogan, Olivia Bogdan, Robert Lipke, Ryan Daly</b>	Body Size and Metabolic Rate Scaling in a Population of Allegheny Mountain Dusky Salamanders, <i>Desmognathus ochrophaeus</i> , from Southwestern Pennsylvania
63	261	<b>Jeffrey Bartman*, Nathan Kudla, Danielle Bradke, Jennifer Moore</b>	Work Smarter, Not Harder: Comparison of Visual and Trap Survey Methods for the Eastern Massasauga Rattlesnake ( <i>Sistrurus catenatus</i> )
64	208	<b>Tito Barros*, Gilson Rivas, Roseini Barboza</b>	The herpetofauna of the highlands of the Serranía de Perijá (Colombia-Venezuela border)
65	214	<b>Michael Harvey*, James Scrivani, Kyle Shaney, Eric Smith, Amir Hamidy, Nia Kurniawan</b>	Sumatra's Endemic Crested Dragons (Agamidae: Lophocalotes): Species Delineation, Sexual Dimorphism, Ecology, and Parasites
66	392	<b>Dennis Wasko*, Stephan Bullard</b>	Analysis of Mass-Media Reported Venomous Snakebites in the U.S., 2011-2013
67	456	<b>Bekah Mongold, Abigail Berkey*, Rayna Bell, William Flint, Steve Gotte, Oliver Hyman, Roy McDiarmid, David McLeod, Daniel Mulcahy</b>	A Biological Survey Unit Type Locality Project: Collecting Genome-Quality, Topotypic Vouchers for Salamanders in Virginia
68	484	<b>Kristin Bakkegard*, Peter Tolson</b>	A New Locality and Habitat Type for the Rare Lizard, <i>Leiocephalus onaneyi</i> (Guantánamo Striped Curlytail)
69	651	<b>Andrew Meiborg*, John Peterson</b>	A first global value of commercial tuna fisheries
70	642	<b>Shelby L. Frizzell*, Dalton B. Neuharth, Connor Adams, Timothy Johnson, Wade A. Ryberg, Toby J. Hibbitts, Travis J. LaDuc, Brad D. Wolaver, Jon Paul Pierre, Benjamin J. Labay, C. Mike Duran</b>	Comparative Analysis of Photo Identification for Mark-Recapture Data in the Spot Tailed Earless Lizard ( <i>Holbrookia lacerata</i> )
71	685	<b>Emma Hanslowe*, Michelle Collier, Bryan Falk, Amy Yackel Adams, Robert Reed</b>	Non-target Captures Incidental to Live Trapping for Invasive Argentine Black-and-white Tegus ( <i>Salvator merianae</i> ) in Florida
72	771	<b>Brent Newman*, Nicole Witzel, Laura Horton, William Sutton, Jeronimo Silva, Brittaney Hogan, Dominique Harris</b>	Assessing Biodiversity and Leech (Hirudinea) Parasitism of Semi-aquatic Turtles in an Urbanized Wetland in Tennessee
73	823	<b>Kelsey Mitchell*, Thomas Mast, Katherine Greenwald</b>	Comparison of Skin Glands of Sexual and Unisexual <i>Ambystoma</i> Salamanders Using Scanning Electron Microscopy
74	816	<b>Amy Schneider*, Christopher Howey</b>	Identification of Individual Timber Rattlesnakes Using Camera Trap Data
75	483	<b>Craig Lind*, Fatima Ramis, Donna-Jael Paredes, Ignacio Moore, Terence Farrell</b>	Does maternal Energetic Status, Corticosterone, or Arginine Vasotocin Influence Maternal Care in the Rattlesnake, <i>Sistrurus miliarius</i> ?
76	192	<b>Mark Sandfoss*, Harvey Lillywhite</b>	Precipitation Patterns and Hydration Status of a Unique Insular Snake Population.
77	919	<b>Samantha Hughes*, Jennifer Deitloff</b>	Territoriality in <i>Plethodon cinereus</i> among three populations from Pennsylvania
78	640	<b>Michael Dreslik*, Christopher Petersen, Scott Goetz, John Kleopfer, Alan Savitzky</b>	Spatial Ecology of the Timber Rattlesnake ( <i>Crotalus horridus</i> ) from the Mid-Atlantic Coastal Plain
79	655	<b>Jessica L. Wright*, Juan D. Daza, Miguel T. Rodrigues, Tony Gamble, Aaron M. Bauer</b>	Skull variation in pug-nosed gecko <i>Chatogecko amazonicus</i> (Gekkota: Sphaerodactylidae)
80	652	<b>Hannah Morris*, Juan D. Daza, Aaron M. Bauer</b>	On the Occurrence of the Stapedial Foramen in Geckos
81	541	<b>Cierra Lucas*, Scott L. Parker, Amanda DiBella</b>	Comparative Digestive Assimilation Efficiency of Snails, Crabs, and Fish in diamond-back terrapins ( <i>Malaclemys terrapin</i> )
82	341	<b>Daniel Saenz*, Toby Hibbitts, Cory Adams</b>	The Calling Ecology of the Crawfish Frog ( <i>Lithobates areolatus</i> ) in Texas
83	498	<b>Jeffrey Streicher, Jack Davies, Natalie Cooper</b>	Amphibian Type Specimen Georeferencing and its Implications for IUCN Red List Classifications
84	738	<b>Maureen Kelley*, Christopher R. Tracy, Ryan P. Walter, Stacey L. McIntyre</b>	Twinning in <i>Sauromalus ater</i> (=obesus), Iguanidae
85	41	<b>Bradley Nissen*, Nathan Bendik</b>	Seasonal Changes in the Body Condition of <i>Eurycea sosorum</i> and <i>Eurycea tonkawae</i>

# Poster Session II - Saturday, 15 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
86	90	Sarah Bailey*, William Clark, Robert Weaver	Influence of parasites on life history characteristics of Western Sagebrush Lizards ( <i>Sceloporus graciosus</i> )
87	789	Ian Wright*, Travis LaDuc	Diet of the Spot-tailed Earless Lizard, <i>Holbrookia lacerata</i> .
88	889	Taston Brookshire*	Tadpole Life History Study at Assimilation Wetlands and River Diversions.
89	859	Camila Rodriguez*, Steve Johnson	Interspecific Interactions Between Two Species of Invasive Lizards in an Urban Environment.
90	<b>CANCELLED</b>		
91	836	Nickolas Boehme*, John Peterson	Analysis of frog vocalizations throughout the day at different wetlands occupied by state-endangered Blanchard's Cricket Frog
92	763	Brian Greene*	Survival estimates of cottonmouths ( <i>Agkistrodon piscivorus</i> ) derived from a 16-year mark-recapture study.
93	693	Timothy Johnson*, Connor Adams, Toby Hibbitts, Wade Ryberg, Tyler Campbell	Herpetofaunal Utilization of Texas Pocket Gopher ( <i>Geomys personatus</i> ) Mounds under Varying Grazing Regimes in the South Texas Sand Sheet
94	663	Matthew Pierson*, Chris Gienger	Metabolic Response to Predation Risk in <i>Agkistrodon contortrix</i>
95	634	Scott Goetz*, Christina Romagosa, Arthur Appel, Craig Guyer, Mary Mendonca	Cuban Treefrog Innate Immunity Covaries with Time since Colonization
96	650	Elizabeth Everman*, Luke Lockhart, Jacob Marlay, Daniel Bittel, Paul Klawinski	Seasonal and geographic variation in physiological and behavioral thermoregulation in <i>Hemidactylus turcicus</i>
97	619	Amelia Russell*, Kyle Brown, Michaela Lambert, Tracey Tuberville, Melissa Pilgrim	Mercury Bioaccumulation in Florida Green Watersnakes ( <i>Nerodia floridana</i> ) Inhabiting Former Nuclear Cooling Reservoirs on the Savannah River Site
98	576	Chi-Shiun Wu*, Jun-Jie Ma, Chang-Ye Yang	Does Salinity Experienced during Embryonic Development Affect Survival and Metamorphosis of Taiwanese Tadpoles Living in Coastal Areas?
99	502	Kelly Murman*, Thomas LaDuke	A Comparative Dietary Analysis of Five Species in the Streamside Salamander Guild (Plethodontidae) in Eastern Pennsylvania
100	516	Noemi Becza, Emily Seiter, Sarah Bolton, Ralph Saporito*	Quantifying Alkaloid Defenses from Dendrobatid Poison Frogs Using a Transcutaneous Amphibian Skin Stimulator (TAS)
101	476	John Rowe*, Chelsea Martin, David Clark, Carlos Valle, Cristina Vintimilla	Habitat Use and Spatial and Thermal Ecology of Two Species of Lava Lizards ( <i>Microlophus</i> ) on Islas Santa Cruz and San Cristóbal, Galápagos
102	423	Kortney Jaworski*, Madelyn Messener, Cari-Ann Hickerson, Carl Anthony	Differences in Territory Quality between Striped and Unstriped Eastern Red-backed Salamanders
103	379	Nancy Buschhaus*, Russell Milam, Adrienne Smith, Cy Mott, Robin Baker, Howard Whiteman	Salamander size structure, bat activity, and inter-ecosystem subsidies in pond ecosystems
104	179	David Steen*, Dawn Kelly	A Cottonmouth and a Copperhead Engaged in Interspecific Combat in the Wild
105	127	Brad M. Glorioso*, J. Hardin Waddle, Lindy J. Muse, Beau B. Gregory, Charles D. Battaglia	Occupancy of Gulf Coast Waterdogs ( <i>Necturus beyeri</i> ) in Southwest Louisiana
106	894	Mary-Ruth Low*, Nick Baker, John J. H. Wei	Herpetofauna Roadkill Rates Bordering Forest Fragments in an Urban City State
107	808	Anjana Parandhaman*, Shawn F. McCracken, Michael R. J. Forstner	Modeling Habitat Suitability for the State Threatened Texas Tortoise, <i>Gopherus berlandieri</i> , in the Eastern Region of its Range
108	673	Nickolas Moreno*, Scott Glaberman, David Nelson, Ylenia Chiari	A Multidisciplinary Approach to Evaluate the Conservation Status of the Alabama Red-Bellied Turtle ( <i>Pseudemys alabamensis</i> )
109	622	Rex Bergamini*, Erika Nowak	Stable Isotope Analyses in Two Federally-listed Gartersnake Species: A Proposal
110	606	Brenna A. Levine*, Marlis R. Douglas, Julie A. Savidge, Bjorn A. Lardner, Robert N. Reed, Michael E. Douglas	Preliminary Estimates of Relatedness and Kinship in an Experimental Population of Brown Treesnake ( <i>Boiga irregularis</i> ) on Guam
111	583	Lance Paden*, Kimberly Andrews, Carmen Candal, James Renner	Use of Prescribed Fire to Increase Detectability of Gopher Tortoise Burrows Prior to Relocation.
112	767	Cord Eversole*, Scott Henke, Randy Powell, Selma Glasscock, Bart Ballard, David Wester	The influence of nest patch on nest site selection and success of American alligators ( <i>Alligator mississippiensis</i> ).
113	89	Wesley Neely*, Norman Dronen	Parasites from Four Species of Threatened Malaysian Freshwater Turtles
114	122	Jaime E Smith*, Joseph H.K. Pechmann, John Tupy	Effects of Litter Type and Algal Wafers on the Growth and Survival of Dusky Gopher Frog ( <i>Rana sevosa</i> ) Tadpoles.
115	113	Greg Sievert*	Efficacy of Different Artificial Cover Objects in Reptile Surveys - A Long Term Study.
116	251	Cory Adams*, Daniel Saenz	Effects of Chinese Tallow Catkins on a Spring Breeding Anuran
117	295	Sarah Baker*, Matthew Allender	Comparison of Testing Methods for Snake Fungal Disease

\* denotes presenter

# Poster Session II - Saturday, 15 July

## Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
118	417	Kodiak Hengstebeck*, Christina Romagosa, Paul Andreadis, Ian Bartoszek	Trapping Large Constrictors from Underground Refugia
119	496	Richard Orton*, Lance McBrayer	Corridors Facilitate Gene Flow in a Fragmented Landscape
120	494	Olivia Brooks*, Alayna Tokash, Willem Roosenburg	Decomposition rates of Diamondback Terrapins ( <i>Malaclemys terrapin</i> ) in crab pots
121	500	Ariane Messerman*, Manuel Leal, Raymond Semlitsch	Juvenile Survival Among Ringed Salamanders ( <i>Ambystoma annulatum</i> )
122	408	Melissa Youngquist*, Sue Eggert, Anthony D'Amato, Brian Palik, Robert Slesak	Potential effects of emerald ash borer invasion on wetland community composition
123	588	Donna Glinski*, Robin Van Meter, W. Matthew Henderson, S. Thomas Purucker	Agricultural Spray Drift Concentrations in Rainwater, Stemflow, and Amphibians in Southern Georgia
124	629	Christopher Peterson*	Spatial variation in <i>Anolis conspersus</i> toepad lamellae
125	783	Robin Van Meter*, Rose Adelizzi	Pesticide and Fertilizer Effects on Corticosterone Production in Juvenile Amphibians
126	849	Erin Cork*, John Maerz, Jeffrey Hepinstall-Cyerman	Investigating Habitat Associations of the Gopher Frog, <i>Lithobates capito</i> , in South Georgia
127	427	Blake Dixon*, James Watling	Thermal tolerances of Red-backed salamanders, <i>Plethodon cinereus</i> , with differing temperature exposure histories
128	721	Joe C. Gunn*, Leah K. Berkman, Lori S. Eggert	Validating the Taxonomic and Distributional Status of the Neosho Smallmouth Bass ( <i>Micropterus dolomieu velox</i> )
129	361	Aaron Geheber*, McKenzie Russell, Caleb McMahan	Inferring Evolutionary Niche Conservatism in Neotropical Cichlid Assemblages using Functional Morphological Traits
130	781	Jackson Martinez*, Travis Richards, Jay Rooker, R.J. David Wells	Feeding Ecology of the Sargassum Frogfish ( <i>Histrio histrio</i> ) in the Gulf of Mexico
131	893	María A. Doria-González, Andrea M. Espitia-Galvis, Ángel L. Martínez-González, Glenys Tordecilla-Petro, Charles W. Olaya-Nieto, Fredys F. Segura-Guevara*	Reproductive Ecology of Bocachico <i>Prochilodus magdalenae</i> in the San Jorge River basin, Colombia
132	404	Shawna Mitchell*, Kasey Benesh, Fernando Ser-rano, Bernie Kuhajda	Microhabitat preferences and diet competition with non-native centrarchid for the endangered Laurel Dace ( <i>Chrosomus saylori</i> )
133	658	Antony Harold*, Dana Norton, Dana Warheit, Miranda Brooker	Relative growth of jaw and pharyngobranchial teeth in the Naked Goby, <i>Gobiosoma bosc</i> (Teleostei: Gobiidae)
134	759	Michael Westphal*, Michael Izumiyama, Ken Oda, Kristine Lesyna, Steven Morey, Karen Crow	Geographic variation in life history characteristics of the calico surfperch, <i>Amphistichus koelzi</i> .
135	762	Michael Izumiyama, Liam O'Malley*, Karen Crow, Michael Westphal, Ken Oda, Kristine Lesyna, Steve Morey	Reproductive Isolation in two Sympatric Surfperches
136	571	Helena de Souza Brasil Barreto*, Kathleen Cole, Jessica Maxfield	Patterns of Oogonia and Spermatogonia Distribution in the Ovotestis of the Hawaiian Endemic Goby, <i>Eviota epiphanes</i>
137	864	Aura S. Romero-Alemán, Sabas G. Sabas G. Mejía-Alvarez, Fredys F. Segura-Guevara, Angel L. Martínez-González, Glenys Tordecilla-Petro, Charles W. Olaya-Nieto*	Reproductive ecology of Bagre rayado <i>Pseudoplatystoma magdaleniatum</i> in the San Jorge River basin, Colombia
138	116	Yuki Fujinami*, Ko Shiozaki, Hirotaka Ijima, Mikihiko Kai, Yasuko Semba	Movements of the Adult Female Blue shark ( <i>Prionace glauca</i> ) in the Northwestern Pacific
139	601	Josh Sherwood*, Jeff Stein	Habitat and fish community changes in Champaign County, IL over the past 100 years.
140	386	Marvin M. F. Lutnesky*, Brian B. Pasko, Thomas R. Brown	How may Population Density Influence Rates of Sex Change in Fishes?
141	563	Wendy Diaz*, Kevin W. Conway	An Investigation of Substrate Scraping Behavior in Three Species of Sicydiine Gobies Inhabiting Freshwater Streams on Dominica, West Indies
142	17	Ingrid Kaatz*, Donald Stewart	Social Behavior Context Sounds and Call Type Differences in Driftwood Catfishes (Family Auchenipteridae) Support the Acoustic Communication Hypothesis
143	95	Eva Paulus*, Michael P Robinson	Advertising Weapons: a Comparative Analysis of the Colors of the Caudal Spines of Surgeonfishes (Acanthuridae)
144	74	Jin-Koo Kim*	Introduction of Marine Fish Resources Bank of Korea (MFRBK)
145	485	Adam Cohen*, Dean Hendrickson, Tomislav Urban, David Walling, John Gentle, Gary Garrett, Melissa Casarez, F. Douglas Martin	Update on the Fishes of Texas Project

## Poster Session II - Saturday, 15 July Rio Grande Exhibit Hall

POSTER #	Abstract #	Presenter	Title
146	243	<b>Peter Unmack*</b> , Mark Adams, Dean Gilligan, Andrzej Kilian	Are specific populations of key threatened Murray-Darling Basin fishes native or introduced?
147	62	<b>Jung-Hwa Ryu*</b> , Jin-Koo Kim	Biogeography of Marine Fish around the Korean Peninsula
148	459	<b>Mariano Elisio*</b> , Yan Zhang, Leandro, A. Miranda, Yoji Yamamoto, Carlos, A. Strüssmann	Potential Application of an In Vitro Gonadal Culture Assay to Determine Fish Reproductive Response to Environmental Temperature
149	747	<b>Nicholas Wegner*</b> , Laura Schwebel, John Hyde	Reduced swimming and metabolic fitness of aquaculture-reared California Yellowtail ( <i>Seriola dorsalis</i> ) in comparison to wild-caught fish
150	862	<b>Yanesha Johnson*</b> , Michael Sandel	Post-mortem Dynamics of the Guppy Dermal Microbiome at Varying Temperatures
151	328	<b>Yvette Halley</b> , Eric Merriam, Amy Welsh, J. Todd Petty, James Anderson	Using Environmental DNA to Assess Species Composition in Appalachian Headwater Streams

# Lightning Talks - Friday, 14 July

**8:00 – 9:30 AM**

584	<b>Mary White*</b> Venom Proteins, Genomics and Predicted Sequences
338	<b>Amanda Martin*, Karen Root</b> Comparing Complementary Tracking Methods for Reptiles in Ohio
44	<b>Bruce Mundy*, Mackenzie Geringer, Jørgen Nielsen, Patricia Fryer, Astrid Leitner</b> First in situ observation of an aphyonid fish (Teleostei, Ophidiiformes, Bythitidae)
81	<b>Miranda Figueras*, Brian Bastarache, Russell Burke</b> Water exchange relationships and overwintering behavior in hatchling turtles
587	<b>Brandon Hedrick*, Samantha Cordero, Patrick O'Roark, Edward Watt</b> Assessment of the First Amphibian Road Crossing Structure in North America 30 Years After Installation
87	<b>Sinlan Poo*, Ming-Feng Chuang, Yeong-Choy Kam</b> Oviposition Site Selection between the Sexes: Examination of a Treefrog with Male Territoriality and Biparental Care
269	<b>Tim Mitchell*, Sarin Tiatragul, Renata Brandt, Josh Hall, Brian Folt</b> Agama the Grouch: Testing Dumpster Selection of Non-Native Rock Lizards in an Urban Landscape
153	<b>Crystal Kelehear*, Cameron Hudson, James Mertins, Richard Shine</b> Ticks on toads: first report of exotic ticks ( <i>Amblyomma rotundatum</i> ) parasitizing invasive cane toads ( <i>Rhinella marina</i> ) in Hawai'i
210	<b>Nicole Palenske*</b> A Herpetological Survey of the Carlson-Kuyper Field Station in Iowa
521	<b>Pamela Hart*, Prosanta Chakrabarty</b> Phylogenomic hypothesis of the relationships among Southern Cavefish populations using UCEs
472	<b>Inah Satiro, Bruno Juca-Queiroz, Wasley Pinheiro, Isabelle Arthaud, Thiago Basilio, Jones Santander-Neto, Vicente Faria*</b> Tiger shark seasonality and structure in the southwestern equatorial Atlantic derived from fisheries data
874	<b>Allison Welch*, Jessica Hinson, Sylvia Davila, Wendy Cory</b> Shining a Light on Prozac's Effects on Amphibians: Fluoxetine and its UV Phototransformation Products Reduce Growth and Activity of Toad Tadpoles

# Lightning Talks - Friday, 14 July

**1:30 – 4:00 PM**

431	<b>Carolyn Reiland-Smith*, David Lucien, Jon Moore</b> Gigantic Gopherus Gastroliths
314	<b>Clark Morgan*, Jim Gelsleichter</b> A Survey of Shark Abundance on Northeast Florida Beaches
378	<b>Jonathan Davis*, Philip Matich, Carey Gelpi</b> Co-occurrence or Coexistence of two Estuarine Predators in Texas: Bull Sharks and Alligator Gars
31	<b>Stan Trauth*, Dustin Siegel, Steve Godley, Zachary Adcock, Roy McDiarmid</b> Testicular Histology and Spermatogenic Stages in the Everglades Dwarf Siren, <i>Pseudobranchius axanthus belli</i> (Caudata: Sirenidae), from South-central Florida
316	<b>Erin Muths*, Brad Lambert, Scott Schneider, Larissa Bailey</b> Survival and the probability of movement in boreal toads: Implications for conservation
285	<b>Renata Platenberg*</b> Self-recovery in the Caribbean: The Snake That Made it Back on its Own
917	<b>Nicolas Pinte*, Vincent Zintzen, Laurent Duchatelet, Ulrich Martin, Jérôme Mallefet</b> Swimming speed velocity of deep-water sharks infer by stereo video footage analyses
399	<b>Natalie Claunch*, Christina Romagosa</b> Do reptilian invaders shed armor to conquer new lands?
769	<b>Colin Brocka*, John Koprowski</b> Home on the Range: Terrestrial Ecology of the Endangered Sonoran Tiger Salamander
710	<b>Austin Francis*</b> Experimental Hydrodynamics of Hammerhead Shark Cephalofoils



# Lightning Talks - Friday, 14 July

1:30 – 4:00 PM cont.

665	<b>John Willson*, Shannon Pittman</b> A Novel Approach to Estimating Density of Burmese Pythons in Everglades National Park
411	<b>Fahmida Khaliq Nitu, Mahatub Khan Badhon*, Md Kutub Uddin, Enamul Mazid Khan Siddique</b> Identifying Priorities of Elasmobranch Biodiversity Conservation in the Bay of Bengal, Bangladesh
27	<b>Dustin Siegel*, David Sever, Stanley Trauth</b> The lack of nasolacrimal ducts in plethodontid salamanders
329	<b>Zackary Delisle*, Johanna Delgado-Acevedo, Lani Lyman-Henley, Dean Ransom</b> Cottonmouth and Diamond-backed Water Snake Spatial Ecology within Constructed and Natural Wetlands
313	<b>Paula Carlson*, Katy Duke, Stacia White, Alan Henningsen</b> A special day for a special group of fishes with saws
589	<b>Evin Carter*, Eric Riddell, Michael Sears, Brad Shaffer, Benjamin Fitzpatrick</b> Bounded hybrid superiority may limit the scope of hybrid invasion
744	<b>Peter Hundt*</b> An Open Access Online Database for the Diets of Fishes
887	<b>Michelle Koo*, David Blackburn, David Cannatella, Alessandro Catenazzi, Carol Spencer, Vance Vredenburg, David Wake, Deanna Olson</b> AmphibiaWeb's Response to the Global Emerging Infectious Disease Crisis in Amphibians
488	<b>Tobey Curtis*, Matthew Ajemian, Christopher Fischer, Michael McCallister, Gregory Metzger, Jessica Quinlan, Leann Winn</b> First Observations of the Movements of Young-of-the-Year White Sharks ( <i>Carcharodon carcharias</i> ) in the Northwest Atlantic Ocean
493	<b>Jenna Crowe-Riddell*, Coleman Sheehy III, Harvey Lillywhite, Kate Sanders</b> Understanding the Population Structure in the Widest-Ranging Squamate Reptile
845	<b>John McCall*, Michael Sandel</b> Invasive Green Swordtails ( <i>Xiphophorus helleri</i> ) at Two North Florida Sites
797	<b>Brian Blais*, John Koprowski, Stuart Wells</b> Non-invasive Conservation: Novel Radio-Telemetry Techniques and Environmental DNA Sampling for Threatened Narrow-headed Gartersnakes ( <i>Thamnophis rufipunctatus</i> )
151	<b>Tiffany Doan*</b> Can Exotic Reptile Invasion Be Facilitated by Disease?

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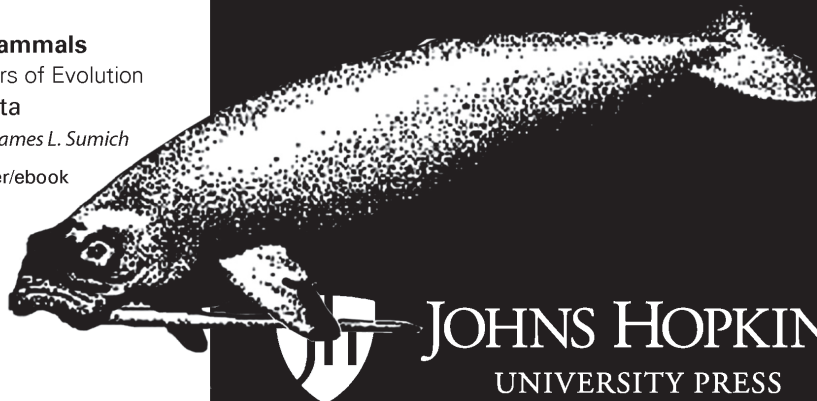
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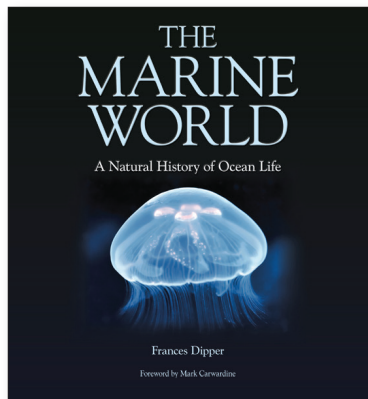
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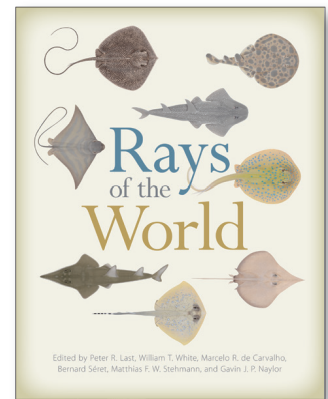
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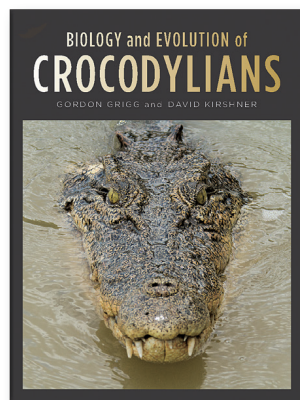
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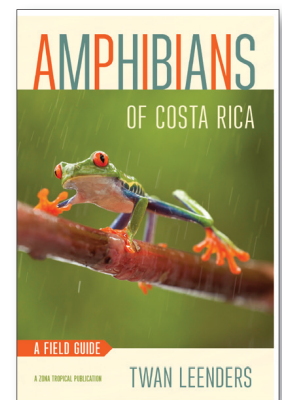
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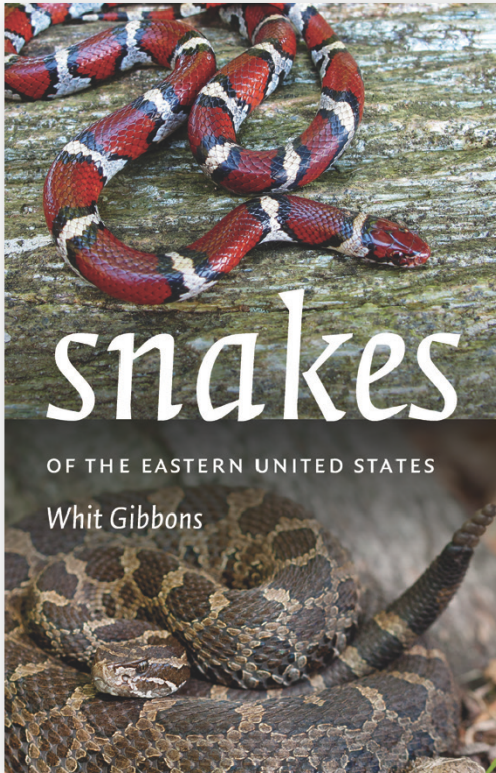


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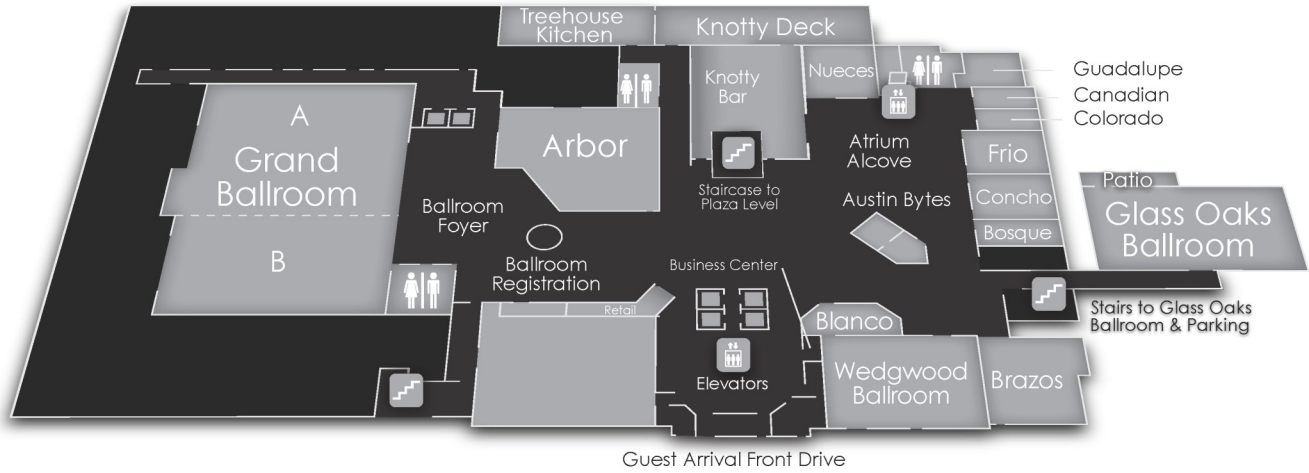
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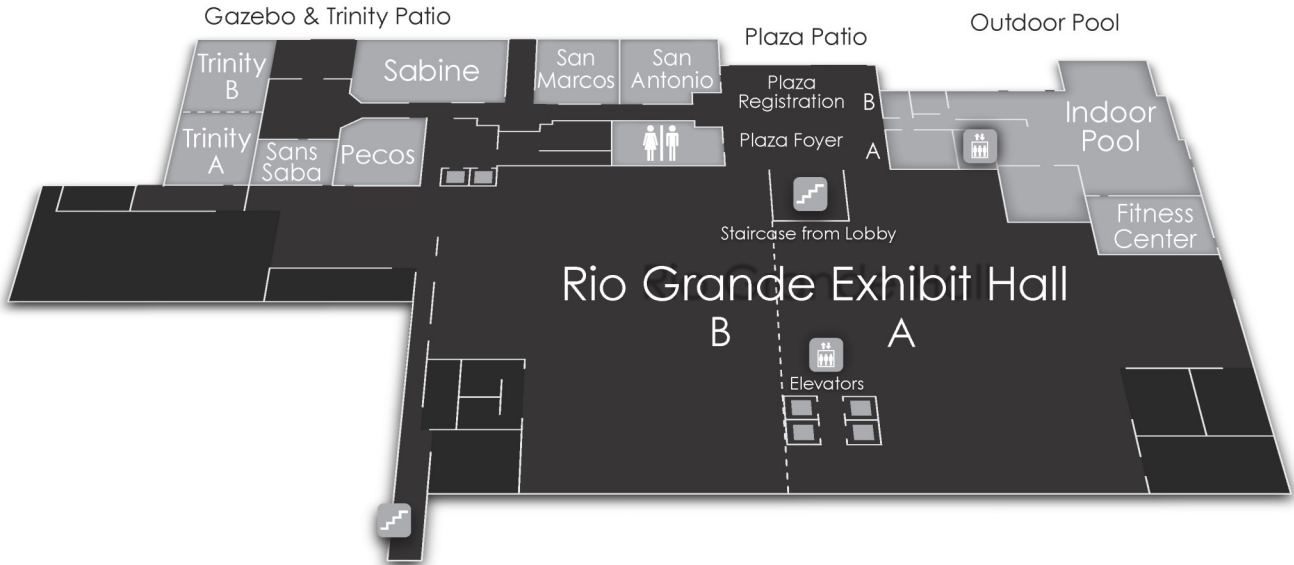




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