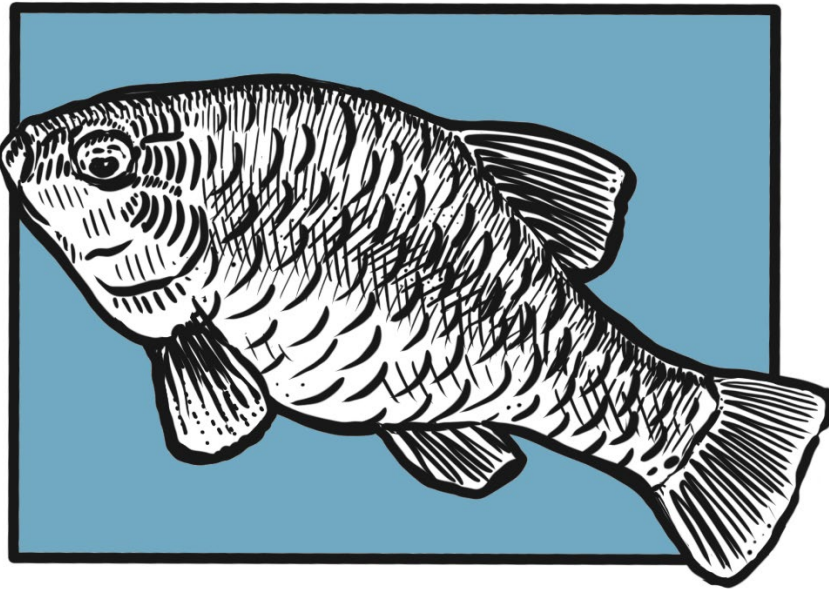


**Desert Fishes Council 55th Annual Symposium, 2023  
Bishop, CA, USA**

**SHORT PROGRAM**



Owens pupfish artwork by Rosa Cox

**THANKS TO LOCAL HOST & MEETING ORGANIZERS  
PHIL PISTER & MICHAEL BOGAN!**

Keep up with DFC business & news:

1. Sign in to Google Groups.
2. Search for the group: Desert Fishes Council Group or [desertfishes@googlegroups.com](mailto:desertfishes@googlegroups.com)
3. Click the group
4. Join group

**MEETING SCHEDULE:**

**WEDNESDAY AFTERNOON, NOVEMBER 15 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS**

16:00-18:00: Registration

16:00-18:00: Presentation loading in person (if not emailed ahead of time)

THURSDAY MORNING, NOVEMBER 16 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS

08:00-09:30: **Registration & coffee**

*Opening ceremonies*

09:15-09:30: Welcome – **Kevin Wilson**, President; **Michael Bogan**, Local Host

Student Awards Session – **Ed Kluender**, moderator

Student Presentations under consideration for **THE ROBERT RUSH & FRANCES HUBBS MILLER AWARD**

09:30-09:45: Genetic & genomic advances on the analysis of hybridization & introgression in the Yaqui catfish, *Ictalurus pricei* (Rutter, 1896) – **Alexandre Gutiérrez-Barragán\***, **Alejandro Varela-Romero**, **Francisco Garcia-De Leon**, **Mariana Mateos**, **Carlos Alonso Ballesteros-Córdova**, **José Manuel Grijalva-Chon**, **John Carlos Garza** & **José Raul Romo-León**

Student Presentations under consideration for **THE CARL L. HUBBS AWARD**

09:45-10:00: Conservation Genomics of Spikedace (*Meda fulgida*) – **Alex Cameron\***, **Megan Osborne** & **Thomas Turner**

10:00-10:15: Conservation genomics of endangered Death Valley pupfishes – **David Tian\***, **Nicolas Alexandre**, **Sean Lema**, **Bruce Turner**, **Olin Feuerbacher**, **Kevin Wilson**, **Michael Schwemm**, **Jennifer Gumm** & **Christopher Martin**

10:15-10:30: Limited genetic connectivity of aquatic invertebrate communities in Grand Canyon revealed using environmental DNA metabarcoding – **Jared Freedman\***, **Theodore Kennedy**, **Molly Burke** & **Dave Lytle**

10:30-10:45: Fish out of water: drying streams, steelhead (*Oncorhynchus mykiss*), & their invertebrate prey – **Jesse Fritz\***, **Matthew Orr** & **Dave Lytle**

10:45-11:00: The conservation status of Nevada's native fishes: assessing risk & quantifying conservation threats – **Zachary Bess\***, **Sudeep Chandra**, **Zeb Hogan** & **Aaron Koning**

11:00-13:00: **LUNCH BREAK**

THURSDAY AFTERNOON, NOVEMBER 16 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS

General Session – Jeff Falke, moderator

13:00-13:15: Phylogenomic Analysis Confirms the Need for a Taxonomic Revision of the Pikeminnows (Teleostei: *Ptychocheilus*) – **Derek Houston**

13:15-13:30: What are they doing down there? Further musings about the mysterious blind catfishes under San Antonio, Texas – **Dean Hendrickson**

13:30-13:45: Evaluation of the Green River Canal fish screen: Survival & physical assessment of Razorback Sucker using an innovative tagging method – **Cat Adams\* & Kevin Bestgen**

13:45-14:00: Lake Mead Fish Hatchery; A State Hatchery in Nevada Dedicated Solely to Rearing Native Fish – **Amos Rehm**

14:00-14:15: Regrouping, resetting, & reinvigorating recovery of listed west Texas fishes: an update from the U.S. Fish & Wildlife Service on six species – **Maritza Mallek**

14:15-14:30: COFFEE BREAK

14:30-14:45: Revisiting the Biogeography of the Owens Basin fishes – **Nicholas Buckmaster**

14:45-15:00: Ongoing restoration projects for the endangered Moapa dace, *Moapa coriacea*, & Virgin River chub, *Gila seminuda*, at the Moapa (Muddy) Warm Springs, Clark County, Nevada – **David Syzdek\* & Michael Schwemm**

15:00-15:15: Insights from 10 Years of operations at the Ash Meadows Fish Conservation Facility – **Jennifer Gumm\*, Olin Feuerbacher, Daniel Villanueva, Ambre Chaudoin, Jeffrey Goldstein, Michael Schwemm, Kevin Wilson, John Wullschleger & Brandon Senger**

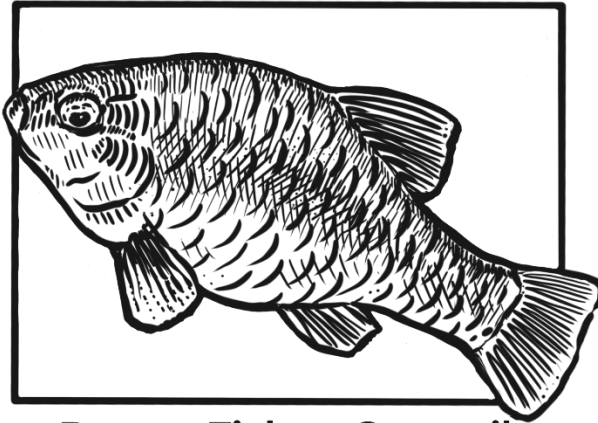
15:15-15:30: The distribution, status, & conservation of a narrow endemic, the Inyo Mountains salamander, *Batrachoseps campi* – **Christopher Norment\*, Nicholas Van Gilder & Elizabeth Jockusch**

**THURSDAY AFTERNOON & EVENING, NOVEMBER 16** – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS

16:00-18:00: Celebrating **Phil Pister** with stories & photos – join us for a celebration of Phil's life & legacy, & please share your stories during our open mic period as well

18:00-20:00: *Social at **Tri-County Fairgrounds**, Tallman Pavilion, open cash bar with dinner provided by Coachwhip Café food truck*

## Pour a pupfish pint for Phil



**Desert Fishes Council  
2023**

Owens pupfish artwork by Rosa Cox



FRIDAY MORNING, NOVEMBER 17 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS

08:30-10:00: *Poster Session with coffee & pastries* –

Student Posters under consideration for THE POSTER AWARD

1. The role of calcium carbonate in gross primary production in the Little Colorado River, AZ, & implications for Humpback Chub growth rates – **Phoebe Brown\***, Eric Moody, Jeffery Muehlbauer, Bridget Deemer, Charles Yackulic, Jessica Corman & Ted Kennedy
2. Using metabarcoding to survey the biodiversity of intestinal parasites of fishes in Grand Canyon – **Isaac Schuman\***, Claire Couch, Justin Sanders, Anna Jolles & David Lytle
3. How beaver pond age affects aquatic invertebrates – **Jazmyn Rivera & Susan Washko**
4. Using a genetic approach to identify undetermined fish to species, with an example from Central Arizona – **Matthew Mayer\***, Scott Bonar, Kaitlyn Gahl, & Michael Bogan

General Posters

5. Lower Colorado River Area Report – **Ron Rogers**
6. Population genetic structure of the endemic fish *Gambusia marshi* from the Cuatro Ciénegas basin & its outflow in Coahuila, Mexico – **Jia Yan Xie, Kyung Seok Kim, Dylan Powell, Hector Espinosa-Pérez, Eric Moody\*** & Kevin Roe
7. Cross-canyon connections? Conservation genomics of a desert-dwelling lungless salamander (*Batrachoseps campi*) – **Nicholas Van Gilder, Christopher Norment\*** & Elizabeth Jockusch
8. What is the Nevada Cooperative Fish & Wildlife Research Unit? Graduate education, collaborative research, & technical assistance for conservation of Great Basin fish & wildlife – **Jeff Falke**
9. Long-term monitoring of a native fish in the Muddy River, Nevada – **Justin Handtke**
10. 2023 update regarding Long Valley Speckled Dace populations – **Nicole Hatakeyama\*** & **Nick Buckmaster**
11. Ten years of ecosystem monitoring in the Ash Meadows Fish Conservation Facility refuge tank – **Daniel Villanueva\***, Olin Feuerbacher, Jennifer Gumm, Ambre Chaudoin, Jeffrey Goldstein, Kevin Wilson & Bryce Donaghue
12. Texas desert fish art – **Harlan Bean\*** & **Amanda Lord**
13. Digging in the dirt: Possible influence of soils & geology on the distribution of an endemic, desert-restricted salamander – **Christopher Norment\*** & **Eli Polzer**
14. Vertical profiles of temperature & dissolved oxygen in Pahranaagat Chub refuge – **Montana Stevens**
15. Humpback Chub recruitment in light of changing environmental conditions – **Pilar Rinker\*** & **Randy Van Haverbeke**
16. 2023 California Area Report – **Sebastian Ayala\***, Nick Buckmaster, Monica Burnett, Jeff Nordin, & Steve Parmenter

FRIDAY MORNING, NOVEMBER 17 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS

General Session – Tyler Pilger, moderator

- 10:00-10:15: Seasonal movements & demographics of a critically endangered desert spring fish; the White River Spinedace – **Summer Burdick\***, James Harter, Mark Beckstrand, Rachael Paul-Wilson, Brian Hayes, Collin Smith & Russell Perry
- 10:15-10:30: Do conservation management actions improve native fish communities? – **Skyler Hedden\***, Brandon Albrecht, Ron Rogers, Kevin Guadalupe, Rick Fridell, Melinda Bennion, Martin Schijf & Kody Callister
- 10:30-10:45: Ontogenetic effects of flow variability in a high-desert stream – **Matthew Young\***, Nicholas Buckmaster, Justin Clause, Veronica Violette & Steve Parmenter
- 10:45-11:00: Genetic monitoring in Rio Grande Silvery Minnow using genotyping-in-thousands by sequencing – **Megan Osborne\***, Guilherme Caeiro-Dias & Thomas Turner
- 11:00-11:15: Amargosa Toad, *Anaxyrus nelsoni* survey results & conservation activities within the Oasis Valley, Nye County, Nevada – **Kevin Guadalupe\***, Brandon Senger, Ron Kegerries, Ron Rogers, Brandon Albrecht & Jef Jaeger

11:15-13:15: LUNCH BREAK

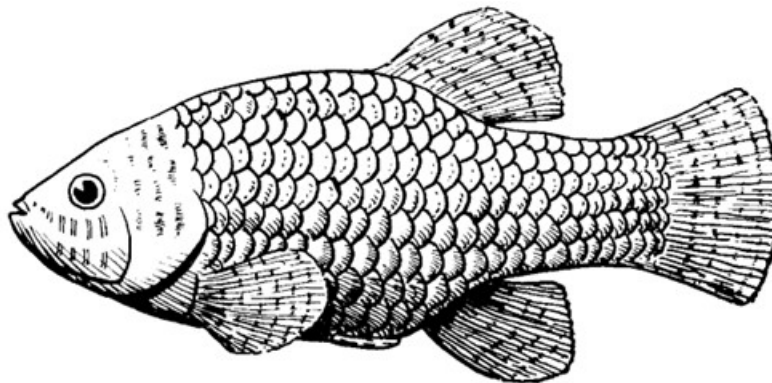
- **STUDENT NETWORKING EVENT** (free lunch for students & mentors, organizer Heidi Blasius)

FRIDAY AFTERNOON, NOVEMBER 17 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS

General Session – Skyler Hedden, moderator

- 13:15-13:30: 2023 Upper Colorado Area Report – **Dave Speas**
- 13:30-13:45: Pupfishes of Death Valley: Hurricane Hilary impacts to Salt Creek & Devils Hole – **Jeffrey Goldstein\***, Ambre Chaudoin, Kevin Wilson, John Wullschleger, Olin Feuerbacher, Jennifer Gumm, Danny Villanueva, Mike Bower, Michael Schwemm, Brandon Senger & Bryce Donaghue
- 13:45-14:00: Turning up the heat: how pupfish reproduction is affected by warming temperature – **Sean Lema\***, Maddie Housh & Kseniya Krayeva
- 14:00-14:15: New genetic tools give a detailed picture of hybridization & population structure of Flannelmouth Sucker – **Thomas Turner\***, Thomas Dowling, Abby Wicks, Guilherme Caeiro-Dias, Alexander Cameron & Megan Osborne
- 14:15-14:30: Population genomics of the imperiled Peppered Chub (*Macrhybopsis tetranema*): new nuclear & mitochondrial data & prospects for long-term monitoring – **Guilherme Caeiro-Dias\***, Megan Osborne & Thomas Turner
- 14:30-14:45: COFFEE BREAK

- 14:45-15:00: Catastrophic drying of a desert wetland: Sentenac Cienega, Anza-Borrego Desert State Park, California – **Kate S. Boersma\***, Janelle Doi, Russell Barabe, Paulette Morales, Rainier Cardin, Shannon E. McNeil & Danny McCamish
- 15:00-15:15: Environmental DNA analysis does not detect the endangered Rio Concepcion topminnow, *Poeciliopsis jackschultzi* – **Alanna Fulkerson, Alejandro Varela Romero, Alexandre Gutiérrez-Barragán, Doug Duncan & Mariana Mateos\***
- 15:15-15:30: Texas area report – **Megan Bean\***, Maritza Mallek, Ryan Smith, Melissa Casarez, Sarah Robertson & Gabriela Tamez
- 15:30-15:45: The microendemic origins of scale-eating in *Cyprinodon* pupfishes provides unexpected insights into rapid speciation, new vertebrate gene function, & the regulation of human cancer genes – **Christopher Martin**
- 15:45-16:15: Still scratching the surface: an update on film & storytelling projects in desert-fish country – **Jeremy Monroe\*** & David Herasimtschuk



**FRIDAY AFTERNOON & EVENING, NOVEMBER 17**

- 16:30-17:30 *Annual DFC business meeting & ExComm elections, Heritage Arts Building, Tri-County Fairgrounds (see meeting agenda on next page)*
- 18:00-21:00: *Social at Phil's favorite watering hole, **Mountain Rambler Brewery**, 186 S Main St, Bishop, CA 93514, with dinner provided by Rolling Chef 395 food truck*

**DESERT FISHES COUNCIL 55TH ANNUAL – BUSINESS MEETING AGENDA**  
**NOVEMBER 17, 16:30-17:30**

- I. Welcome & call to order – **Kevin Wilson**, President
  - a. Discussion & approval of 2022 Business Meeting minutes
  - b. President’s report
- II. Executive Committee Reports
  - a. Immediate Past President – Megan Bean
  - b. Treasurer, Executive Secretary – Stewart Reid
    - i. Alternative signatory on financial accounts
  - c. Membership Secretary – Melissa Trammell
  - d. Member-at-Large – Lindsey Elkins
    - i. 2023 Grants
    - ii. Nominations & voting:
      - 1. President
      - 2. Program Secretary
      - 3. Membership Secretary
      - 4. Areas Coordinator
  - e. Student awards – Krissy Wilson
  - f. Areas Coordinator – Michael Schwemm
  - g. Outreach Coordinator – Heidi Blasius
  - h. Program Secretary – Chris Hoagstrom
    - i. Naming The Poster Award for Phil Pister
  - i. Proceedings Editor & Data Management, Webmaster – David Rogowski
- III. Old Business
  - a. 2024 Meeting – Kevin Wilson
  - b. Call for additional old Business – Kevin Wilson
- IV. New Business
  - a. 2025 Meeting & collaboration with SIMAC (Mexican Ichthyology Society) – Dean Hendrickson
  - b. Call for additional new business – Kevin Wilson
- V. Adjourn



**SATURDAY MORNING, NOVEMBER 18 – HERITAGE ARTS BUILDING, TRI-COUNTY FAIRGROUNDS**

***General Session – Susan Washko, moderator***

- 08:15-09:00: Screening of “*Paya: The Water Story of the Paiute*” – Owens Valley Indian Water Commission
- 09:00-09:15: Effective or futile – mechanical removal of nonnative species – **David Rogowski**
- 09:15-09:30: Humpback chub (*Gila cypha*) monitoring & translocations in the Little Colorado River, Arizona – **Michael Pillow\***, **Pilar Rinker & David Ward**
- 09:30-09:45: Invasive Northern Pike, *Esox lucius*, Telemetry in Utah Lake – **Wes Franklin\***, **Bryan Kesner & Paul Marsh**
- 09:45-10:00: Assessing ecosystem & population dynamics to determine the primary drivers of Devils Hole Pupfish population trends – **John Umek\***, **Kevin Wilson, Jeff Goldstein, Ambre Chaudoin & Mark Hausner**
- 10:00-10:15: Stratiomystery: Ability of aquatic *Odontomyia* (Diptera: Stratiomyidae) larvae to survive stream drying using dormancy – **Susan Washko\*** & **Michael Bogan**
- 10:15-10:30: Abandoned in the Mojave Desert: revised history of oviparous goodeids (Empetrichthyinae) – **Sonia Hernandez, Christopher Hoagstrom\*** & **Wilfredo Matamoros**

## **FIELD TRIPS**

### **Saturday Nov 18**

- 11:00-15:00:** Field trip to Owens pupfish habitat restoration project at BLM Spring in Fish Slough, led by retired California Fish & Wildlife biologist Steve Parmenter & BLM biologist Evan Standifer – [*limit 20 attendees*]

### **Sunday Nov 19**

- 08:00-13:00:** Field trip to Owens pupfish conservation project at River Spring Lakes Ecological Refuge, led by project California Fish & Wildlife biologist Nick Buckmaster – [*limit 20 attendees*]