

Desert Fishes Council

Consejo de los Peces del Desierto



Dedicated to the Conservation of North America's Arid Land Ecosystems

Wednesday, November 20, 2013

13:00-17:00 Arrival, check-in and presentation loading at the High Country Conference Center

Thursday, November 21, 2013

07:45-18:00 Registration and presentation loading

08:30-09:00 Opening Remarks

- Heidi Blasius, DFC President
- Linn Montgomery, Local chair host

09:00-12:00 General Session I: Clay Crowder, Moderator

09:00 Inorganic contaminants from past mining activity: Community structure, foodweb dynamics and bioaccumulation in fish and aquatic macro-invertebrates, Southeastern Arizona.

Gwinn, Jessica, E.¹, Chesley, John², Dettman, David², Reinthal, Peter^{*1} (1-University of Arizona, Dept Ecology and Evolutionary Biology, 2-University of Arizona, Dept Geosciences).

09:15 Does variation in sampling effort during a long term monitoring project matter (Lees Ferry, Colorado River)?

Rogowski, David^{*1} (1-Arizona Game and Fish Department).

09:30 Spawning probability of the endangered humpback chub, *Gila cypha*, in the Little Colorado River, Arizona

Pearson, Kristen^{*1}, Kendall, William², Winkelman, Dana² (1-Colorado State University, Department of Fish, Wildlife and Conservation Biology, 2-U.S. Geological Survey Colorado Cooperative Fish and Wildlife Research Unit).

09:45 Colorado River fish monitoring in Grand Canyon, Arizona: 2002-2012 humpback chub, *Gila cypha*, aggregations

Persons, William^{*1}, Vanhaverbeke, David R.² (1-USGS Grand Canyon Monitoring and Research Center, 2-U.S. Fish and Wildlife Service).

10:00 Effects of water temperature and turbidity on predation vulnerability of juvenile humpback chub to rainbow trout and brown trout

Ward, David L.^{*1}, Morton-Starner, Rylan² (1-U.S. Geological Survey, Grand Canyon Monitoring and Research Center, 2-U.S. Geological Survey, Grand Canyon Monitoring and Research Center).

10:15 Turning mitigation into beneficial conservation for native fish species in Arizona

Meka Carter, Julie^{*1} (1-Arizona Game and Fish Department).

10:30 Razorback sucker use of the Colorado River inflow of Lake Mead and the lower Grand Canyon

Kefferies, Ron^{*1}, Albrecht, Brandon¹ (1-Bio-West, Inc.).

10:45 Bluehead sucker and the complex drainage history of the upper Little Colorado River

Douglas, Marlis R.^{*1}, Anthonysamy, Whitney JB², Davis, Mark A², Bangs, Max R¹, Selby, Glenn³, Cole, Jeff, Douglas, Michael E¹ (1-University of Arkansas, Biological Sciences, 2-Illinois Natural History Survey, University of Illinois, 3-Navajo Nation Department of Fish and Wildlife).

11:00 Turbidity effects on spatial dynamics of rainbow trout abundance and growth, Grand Canyon, AZ

Yard, Michael^{*1}, Korman, Josh², Kennedy, Theodore¹, Yackulic, Charles¹, VanderKooi, Scott¹ (1-USGS Grand Canyon Monitoring and Research Center, 2-Ecometric Research Inc.).

11:15 Use of ultrasonic imaging and Ovaprim® to evaluate egg maturation of humpback chub, *Gila cypha*

Brizendine, Morgan E.^{*1}, Ward, David L.², Bonar, Scott A.¹ (1-University of Arizona, Arizona Cooperative Fish and Wildlife Research Unit, 2-U.S. Geological Survey, Grand Canyon Monitoring and Research Center).

11:30 Non-native fish control in Colorado River tributaries in Grand Canyon National Park

Healy, Brian^{*1}, Nelson, Clay¹, Omana Smith, Emily¹, Trammell, Melissa² (1-Grand Canyon National Park, 2-National Park Service - Intermountain Region).

11:45 Monitoring of humpback chub, bluehead sucker, and flannelmouth sucker in the Little Colorado River, Grand Canyon, Arizona

Vanhaverbeke, David R.^{*1}, Pillow, Michael J.¹, Stone, Dennis M.¹, Young, Kirk L.¹ (1-U.S. Fish and Wildlife Service, Arizona Fish and Wildlife Conservation Office).

12:00-13:15 Lunch

13:15-14:30 General Session II: Brandon Albrecht, Moderator

13:15 The life and times of Dr. Robert J. Behnke

Bestgen, Kevin R.^{*1} (1-Colorado State University).

13:30 Dewatering: A possible alternative to chemical renovation, and the attempted removal of nonnative Western mosquitofish, *Gambusia affinis*, from Sharp Spring, Arizona

Pearson, Drewyer¹, Crowder, Clayton^{*1}, Robinson, Anthony¹ (1-Arizona Game and Fish Department).

13:45 Monitoring trout barriers

Meyer, Kelly^{*1}, Ozborn, Lisa¹ (1-Arizona Game and Fish Department).

14:00 Rise up, Lazarus: life history and distribution of the Arizona Snowfly, an intermittent stream specialist

Bogan, Michael^{*1} (1-University of California, Berkeley).

14:15 Assessing variation through space and time in the vital rates of humpback chub in the Little Colorado River

Dzul, Maria^{*1}, Yackulic, Charles¹ (1-US Geological Survey, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center).

14:30 Use of hydrographic data and historic species locations to select potential streams for repatriation of spikedace, *Meda fulgida*, and loach minnow, *Tiaroga cobitis*

Robinson, Anthony T.^{*1}, Eiden, Nicole L.¹ (1-Arizona Game and Fish Department).

14:45 Green sunfish, *Lepomis cyanellus*, removal from Horse Camp Canyon, a tributary to Aravaipa Creek, Graham and Pinal Counties, Arizona

Reese, Rosalee^{*1}, Blasius, Heidi¹, Conn, Jeff¹ (1-Bureau of Land Management, Safford Field Office).

15:00 Flow related responses of the age-0 population of rainbow trout in Lees Ferry

Avery, Luke^{*1}, Korman, Josh², Copp, Adam¹ (1- U.S. Geological Survey, Grand Canyon Monitoring and Research Center, 2- Ecometric Research Inc.).

15:15 Steady as she flows: assessing the response of native fish to a steady flow experiment from Glen Canyon Dam

Dodrill, Mike^{*1}, Pine, Bill², Gerig, Brandon², Finch, Colton² (1-U.S. Geological Survey, Grand Canyon Monitoring and Research Center, 2-University of Florida).

15:30 Endangered humpback chub translocations to Colorado River tributaries in Grand Canyon National Park

Omana Smith, Emily^{*1}, Healy, Brian¹, Nelson, Clay¹, Trammell, Melissa² (1-Grand Canyon National Park, 2-National Park Service- Intermountain Region).

15:45 A quantitative life history of humpback chub that spawn in the Little Colorado River: variation in movement, growth and survival

Yackulic, Charles^{*1}, Yard, Mike¹, Korman, Josh², Vanhaverbeke, David R.³ (1-US Geological Survey, 2-Ecometric Research Inc, 3-US Fish and Wildlife Service).

16:00 A continued assessment of the reproductive success of razorback sucker stocked in ephemeral and permanent backwaters of Lake Mohave

Saltzgeber, Melody¹, Turner, Thomas², Dowling, Thomas^{*1}, Marsh, Paul³ (1-Wayne State University, 2-University of New Mexico, 3-Marsh & Associates).

16:15 Mechanical removal of green sunfish, *Lepomis cyanellus*, from Bonita Creek, AZ

Kesner, Brian R.^{*1}, Blasius, Heidi B.², Marsh, Paul C.¹ (1-Marsh and Associates, LLC, 2-Bureau of Land Management, Safford Field Office).

16:30 Juvenile and adult razorback sucker research and monitoring in Lake Mead, Nevada and Arizona

Shattuck, Zachary^{*1}, Albrecht, Brandon¹, Rogers, Ronaldo¹ (1-BIO-WEST, Inc.).

16:45 Lower Colorado River Basin Area Report

Duncan, Douglas K.^{*1} (1-US Fish and Wildlife Services- Arizona Ecological Services).

17:00 Post-fire recovery of fish populations in Blue River, AZ

Massure, Wade^{*1}, Kesner, Brian¹, Wisenall, Jamie¹, Marsh, Paul¹ (1-Marsh & Associates).

17:00-19:00 Poster Session

Spawning periodicity of Rio Grande Silvery Minnow from 2002–2013

Dudley, Robert K.^{*1}, Platania, Steven P.¹ (1- American Southwest Ichthyological Researchers).

Stream monitoring in the Gila River Drainage, Fall 2012

Upton, Lara^{*1} (1-Arizona Game and Fish Department).

Race against time: establishing a refuge population for the Carbonera pupfish, *Cyprinodon fontinalis*

De la Maza-Benignos, Mauricio¹, Lozano-Vilano, María de Lourdes², Vela-Valladares, Lilia¹, Banda-Villanueva, Iris¹, Carson, Evan W.^{*3} (1-Pronatura Noreste, A.C., 2-Laboratorio de Ictiología, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León, 3-University of New Mexico, Department of Biology and Museum of Southwestern Biology, Albuquerque).

Status and trends of fishes in the lower 1,200 meters of the Little Colorado River, Grand Canyon (1987-2013)

Osterhoudt, Robin J.^{*1}, Bunch, Aaron J.¹ (1-Arizona Game and Fish Department).

Common carp ages, back calculations and growth rates at a large backwater above Lees Ferry in Glen Canyon, Colorado River

Wolters, Pilar^{*1} (1-Arizona Game and Fish Department).

An evaluation of tagging mortality and tag retention in age-0 humpback chub *Gila cypha*

Ward, David L.^{*1}, Young, Kirk², Persons, Bill¹, Stone, Dennis², Van Haverbeke, Randy², Knight, William³ (1-U.S. Geological Survey, Grand Canyon Monitoring and Research Center, 2-U.S. Fish and Wildlife Service, Arizona Fish and Wildlife Conservation Office, 3-U.S. Fish and Wildlife Service, Southwestern Native Aquatic Resources and Recovery Center).

An experimental evaluation of competition between rainbow trout *Oncorhynchus mykiss* and humpback chub *Gila cypha*

Morton-Starner, Rylan^{*1}, Ward, David¹ (1-U.S. Geological Survey, Grand Canyon Monitoring and Research Center).

Habitat suitability criteria for Virile Crayfish, a non-native species in Arizona

Petre, Sally^{*1}, Bonar, Scott¹ (1-University of Arizona, 2-USGS Arizona Cooperative Fish and Wildlife Research Unit).

Fishes of Texas Project: compilation, normalization and quality control of museum data

Hendrickson, Dean A.^{*1}, Cohen, Adam E.¹, Labay, Ben¹ (1-University of Texas Austin, Texas Natural Science Center).

Ecomorphology of Poeciliids in the Southwest

Jones, Amber^{*1}, Gibb, Alice¹, O'Neill, Matthew¹ (1-Northern Arizona University, 2-Northern Arizona University, 3-Arizona Game and Fish Department).

An attempt to spawn endangered Moapa dace in captivity

Ruggirello, Jack^{*1}, Bonar, Scott², Feuerbacher, Olin² (1-University of Arizona, 2-USGS Arizona Cooperative Fish and Wildlife Research Unit).

Habitat use of larval fishes in a southwestern desert stream

Mercado-Silva, Norman^{*1}, Bonar, Scott¹ (1-University of Arizona, Arizona Cooperative Fish and Wildlife Research Unit).

Determining the Frequency of opercular deformities in age-0 native Catostomids from the San Juan River (NM, CO, UT)

Barkstedt, Judith M.^{*1}, Hester, Jennifer L.¹, Farrington, Michael A.¹ (1-American Southwest Ichthyological Researchers).

San Juan River fish community dynamics at Chaco Wash, New Mexico

Cathcart, C. Nathan^{*1}, Gido, Keith¹, McKinstry, Mark² (1-Kansas State University, 2-Bureau of Reclamation).

Spatial variability of physicochemical and biological characteristics in Cuatro Ciénegas, MX

Corman R, Jessica^{*1}, Ramos, Jorge¹, Childers, Daniel¹, Elser J, James¹ (1-Arizona State University).

Stable isotopes reveal spatial variation in trophic resource use by Pecos River fish assemblages

East, Jessica^{*1}, Pease, Allison¹ (1-Texas Tech University).

Feeding ecology of Pecos River fish assemblages

Wilcut, Chris^{*1}, Marquez, Daniel¹, East, Jessica¹, Pease, Allison¹ (1-Texas Tech University, Department of Natural Resources Management).

One species, two river systems: the status of Virgin River chub, *Gila seminuda*, in the Virgin and Muddy rivers, Arizona and Nevada

Rogers, Ronald^{*1}, Albrecht, Brandon¹, Kegerries, Ronald¹, Shattuck, Zach¹, Syzdek, David² (1-BIO-WEST Inc., 2-SNWA).

Keeping the Rio Grand: Saving Rio Grande silvery minnow

Archdeacon, Thomas P.¹, Diver, Tracy A.^{*1}, Austring, Tristan J.¹, Nolan, Matt S.¹ (1-U.S. Fish and Wildlife Service, New Mexico Fish and Wildlife Conservation Office).

19:00-21:00 Graduate Student-Professional Speed-Networking Workshop
Hosted by Marlis Douglas and Michael Douglas

Friday, November 22, 2013

08:30-11:00 Special Symposium: *Restoration of degraded aquatic habitats: A watershed approach.* Gary Garrett and Heidi Blasius, Moderators

08:30 Challenges and opportunities in restoring the geophysical template of native fish habitat in the U.S. Southwest and Northern Mexico

Schmidt, Jack C.*¹ (1-Department of Watershed Sciences, Utah State University, Grand Canyon Monitoring and Research Center, U.S. Geological Survey)

08:45 A community-based approach to watershed conservation in Texas

Garrett, Gary P.*¹, Bean, Megan¹, Birdsong, Tim¹, McGillicuddy, Ryan¹ (1-Texas Parks and Wildlife Department, Director Watershed Policy and Management).

09:00 Challenges, constraints, and realities in enhancing, creating, and restoring aquatic and terrestrial habitats for wildlife in the desert

Blasius, Heidi Blue*¹, Conn, Jeff¹ (1-Bureau of Land Management, Safford Field Office).

09:15 Bringing water back to the land

Austin, Valer*¹ (1-El Coronado Ranch).

09:30 Watershed restoration of our forgotten waters

Cole, A.T.*¹, Cole, Cinda¹ (1-Pitchfork Ranch).

09:45 Watershed conservation and restoration in Texas: Working with private landowners

Bean, Megan*¹, Garrett, Gary¹, Moore, Joyce¹, Kalmbach, Arlene¹ (1-Texas Parks and Wildlife Department).

10:00 Collaboration and integrated learning: Lessons learned for watershed conservation and restoration of aquatic habitats

Roberson, Aimee*¹, Bennett, Jeffery¹, Garrett, Gary¹, Johnson, Genevieve¹ (1-Desert Landscape Conservation Cooperative, 2-Big Bend National Park, 3-Texas Parks and Wildlife Department, 4-Desert Landscape Conservation Cooperative).

10:15 Comments on the effect of the San Bernardino watershed restoration efforts on Yaqui fish populations

Minckley, Chuck*¹ (1-Coronado Ranch).

10:30 Realizing a triple win in the desert: Systems-level engineering with nature on the Rio Grande

Koran, David*¹, Burks-Copes, Kelly², Miller, Sarah², Hummel, Ondrea³, Austin Johnson, Alicia³, Foran, Christy, Wozencraft, Jennifer⁴ (1-CARC�WKRC & US Army Corps of Engineers, 2-US Army Corps of Engineers, Engineer Research Development Center, 3-US Army Corps of Engineers, Albuquerque District, 4-US Army Corps of Engineers, Mobile District).

10:45 Where do we go from here? Session discussion and wrap-up

Garrett, Gary P.*¹, Blasius, Heidi B.² (1-Texas Parks and Wildlife Department, 2-Bureau of Land Management, Safford Office).

11:00-12:00 General Session IV: Heidi Blasius, Moderator

11:00 Bonneville Basin Area Report

Albrecht, Brandon^{*1}. (1-BIO-WEST).

11:15 The status of Alvord chub, *Siphateles alvordensis*, in the Alvord Basin in SE Oregon and NW Nevada

Scheerer, Paul^{*1}, Bauman, Brad² (1-Oregon Department of Fish and Wildlife, 2-Nevada Department of Wildlife).

11:30 Arid-land stream pool invertebrates demonstrate high resistance and functional redundancy to severe drying

Boersma, Kate S.^{*1}, Bogan, Michael T.², Henrichs, Brian A.¹, Lytle, David A.¹ (1-Oregon State University, Department of Zoology, 2-University of California, Berkeley, Department of Environmental Science, Policy & Management).

11:45 Genetic analysis of native populations of largemouth bass, *Micropterus salmoides*, in Northeastern México

García-De-Leon, Francisco Javier^{*1}, Rodríguez-Martínez, Rocio I.², Hendrickson, Dean A.³ (1-Lab. Genética para la Conservación, Centro de Investigaciones Biológicas del Noroeste, SC, 2-Instituto Tecnológico de Ciudad Victoria, 3-Texas Natural Science Center, University of Texas at Austin).

12:00-13:30 Lunch

13:30-17:00 General Session IV: Andy Makinster, Moderator

13:30 Effects of total suspended sediment on survival of Yaqui chub eggs and larvae

Clark Barkalow, Stephani^{*1}, Bonar, Scott² (1-University of Arizona Cooperative Fish and Wildlife Unit, 2-USGS Cooperative Fish and Wildlife Unit).

13:45 What habitat parameters can be modified to reduce interactions between imperiled Apache trout and invasive crayfish?

Petre, Sally^{*1}, Bonar, Scott¹ (1-University of Arizona, 2-USGS Arizona Cooperative Fish and Wildlife Research Unit).

14:00 Spawning ecology of the endangered Moapa dace revealed through underwater videography

Ruggirello, Jack^{*1}, Bonar, Scott², Feuerbacher, Olin² (1-University of Arizona, 2-USGS Arizona Cooperative Fish and Wildlife Research Unit).

14:15 Population dynamics of spikedace, *Meda fulgida*, and loach minnow, *Tiaroga cobitis*, in the upper Gila River, NM 2008-2013: populations in peril

Whitney, James E.^{*1}, Gido, Keith¹ (1-Kansas State University).

14:30 Advances in the mitochondrial sequence and genome structure of the Yaqui catfish, *Ictalurus pricei*, in Northwest Mexico

Ballesteros-Cordova, Carlos Alonso^{*1}, Varela-Romero, Alejandro¹, Grijalva-Chon, Jose Manuel¹, Castillo-Gamez, Reyna Amanda¹, Camarena-Rosales, Faustino² (1-Universidad de Sonora, 2-Universidad Autónoma de Baja California).

14:45 Convergent evolution of high-performance swimming morphology in an Arizona freshwater fish

Moran, Clinton^{*1}, Gibb Dr., Alice C¹ (1-Northern Arizona University).

15:00 Spatial dynamics, home range, and growth of Moapa dace

Hereford, Mark^{*1}, Peacock PhD, Mary¹ (1-University of Nevada, Reno, Department of Biology).

15:15 Population genetics of *Moapa coriacea*

Johnson, Danielle^{*1}, Peacock PhD, Mary¹ (1-University of Nevada, Reno).

15:30 Flow-dependent competitive interactions between the invasive, *Gambusia geiseri*, and endangered, *Gambusia nobilis*, in a reconstructed desert wetland habitat: Implications for endangered species management

Delaune, Kelbi D.^{*1}, Hargrave Chad W.¹ (1-Sam Houston State University)

15:45 Determining post-stocking fate of June sucker, *Chasmistes liorus*, in Utah Lake, UT

Ehlo, Chase^{*1}, Wisenall, Jamie¹, Kesner, Brian R.¹, Marsh, Paul C.¹ (1-Marsh and Associates, LLC).

16:00 Conservation genetic status of the critically endangered Julimes pupfish, *Cyprinodon julimes*

Carson, Evan W.^{*1}, Lozano-Vilano, María de Lourdes², Vela-Valladares, Lilia³, Banda-Villanueva, Iris³, De la Maza Benignos, Mauricio³, Turner, Thomas F.¹ (1-University of New Mexico, Department of Biology and Museum of Southwestern Biology, Albuquerque, 2-Laboratorio de Ictiología, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León, 3-Pronatura Noreste, A.C.).

16:15 Desert fishes research and management in Texas during 2013

Edwards, Robert J.^{*1}, Garrett, Gary², Bean, Megan², Allan, Nathan L.³ (1-University of Texas-Pan American, 2-Texas Parks and Wildlife Department, 3-Texas Parks and Wildlife Department, 4-U.S. Fish and Wildlife Service).

16:30 Phenotypic differences in life history traits in refuge populations of Pahrump poolfish

Goodchild, Shawn^{*1}, Stockwell, Craig¹ (1-North Dakota State University).

16:45 Devils Hole pupfish, *Cyprinodon diabolis*: status, updates, and recovery actions for 2013

Wilson, Kevin¹, Gaines, Bailey^{*1}, Goldstein, Jeff¹, Wullschleger, John², Simons, Lee³, Sjoberg, Jon, Senger, Brandon⁴, Weissenfluh, Darrick⁵ (1-National Park Service, Death Valley National Park, 2-National Park Service, Water Resources Division, 3-U.S. Fish and Wildlife Service, Las Vegas Office, 4-Nevada Department of Wildlife, 5-U.S. Fish and Wildlife Service, Ash Meadows Fish Conservation Facility).

17:00-18:00 Business Meeting

18:45-22:00 Banquet- Museum of Northern Arizona

Saturday, November 23, 2013

08:30-12:00 General Session V: Tony Robinson, Moderator

08:30 Upper Colorado Basin Area Report

Badame, Paul^{*1} (1-Utah Division Wildlife Resources).

08:45 Effects of increasing water temperatures on desert fishes and options for management

Bonar, Scott A.^{*1} (1-Arizona Cooperative Fish and Wildlife Research Unit, University of Arizona).

09:00 Conservation efforts for the endangered Moapa dace, *Moapa coriacea*, at the Warm Springs Natural Area, Clark County, Nevada

Syzdek, David^{*1} (1-Southern Nevada Water Authority).

9:15 Movement of fishes in a San Juan River tributary network: When, Where, and Why

Cathcart, C. Nathan^{*1}, Gido, Keith¹, McKinstry, Mark² (1-Kansas State University, 2-Bureau of Reclamation).

9:30 Origin and diversification of Rio Grande sucker, *Pantosteus plebeius*, in the Gila River Basin

Turner, Thomas F.^{*1}, Osborne, Megan J.¹, Pilger, Tyler J.¹, Propst, David L.¹ (1-University of New Mexico).

9:45 Oregon-Northern California Area Report / Case Study: Response of Fosskett Spring speckled dace, *Rhinichthys osculus* ssp., to habitat restoration and introduction into a novel habitat

Scheerer, Paul^{*1}, Leal, James² (1-Oregon Department of Fish and Wildlife, 2-Bureau of Land Management).

10:00 The effect of introduced bullfrogs, *Rana catesbeiana*, on nutrient dynamics and algae communities in a desert river

Greene, Robin^{*1}, Sabo, John¹ (1-School of Life Sciences, Arizona State University).

10:15 Landscape-scale effects on genetic and phenotypic variation of longfin dace, *Agosia chrysogaster*, in the upper Gila River drainage

Pilger, Tyler J.^{*1}, Diver, Tracy A.¹, Franssen, Nathan R.¹ (1-University of New Mexico, Department of Biology).

10:30 Macroecological patterns of Mexican freshwater fishes

Garrido-Olvera, Lorena¹, Mercado-Silva, Norman², Zambrano González, Luis³, Pérez-Ponce de León, Gerardo³. (1-Posgrado en Ciencias Biológicas, Instituto de Ecología, Universidad Nacional Autónoma de México, 2-School. Nat. Res. Env., Univ. of Arizona, 3-Departamento de Zoología, Instituto de Biología, Universidad Nacional Autónoma de México).

10:45 Biotic indicators of arid land spring reference conditions

Sada, Donald W.^{*1} (1-Desert Research Institute Sierra Nevada Aquatic Research Laboratory).

11:00 Riverscape genetics of roundtail chub in the Upper Colorado Basin

Douglas, Marlis R.^{*1}, Chafin, Tyler K¹, Douglas, Michael E¹ (1-University of Arkansas, Biological Sciences).

11:15 Status of bluehead sucker populations in the Weber, Snake, and Bear rivers, northern Utah

Tuttle, Phil K.^{*1}, Thompson, Paul D.¹ (1-Utah Division of Wildlife Resources, 2-Utah Division of Wildlife Resources).

11:30 Ichthyofaunal survey of the Dirty Devil River, 2012

Hester, Jennifer L.^{*1}, Farrington, Michael A.¹, Platania, Steven P.¹, Brandenburg, W. Howard¹ (1-American Southwest Ichthyological Researchers).

11:45 Disentangling historical biogeography and anthropogenic introductions: a case study of red shiner, *Cyprinella lutrensis*

Diver, Tracy^{*1}, Turner, Thomas¹, Osborne, Megan¹ (1-University of New Mexico, 2-Museum of Southwestern Biology).

12:00-13:30 Lunch

13:30-16:00 General Session VI: Mike Bogan, Moderator

13:30 The Canadian River: A tale of two fishes Arkansas River shiner, *Notropis girardi*, and peppered chub, *Macrhybopsis tetranema*

Love-Chezem, Tiffany^{*1}, Gilbert, Eliza¹ (1-New Mexico Department of Game and Fish).

13:45 Population regulation and response to drought in speckled chub, *Macrhybopsis aestivalis*

Hoagstrom, Chris^{*1}, Davenport, Stephen², Brooks, James², Propst, David³ (1-Department of Zoology, Weber State University, 2-New Mexico Fish and Wildlife Conservation Office, 3-Museum of Southwestern Biology).

14:00 To pee P or not to pee P? Excretion rates of the robust gambusia, *Gambusia marshi*, across a water chemistry and resource quality gradient

Moody, Eric K.^{*1}, Corman, Jessica R.¹, Espinoza-Perez, Hector², Lee, Zarraz¹, Nevarez, Nicole M.¹, Ramos, Jorge, Elser, James J.¹ (1-Arizona State University, 2-Universidad Nacional Autonoma de Mexico).

14:15 Annual highlights from the Ash Meadows Fish Conservation Facility

Weissenfluh, Darrick S.^{*1}, Feuerbacher, Olin², Linares, Javier³, Simons, Lee⁴, Wilson, Kevin⁵, Senger, Brandon, Wullschlegel, John⁷, Sjoberg, John⁶ (1-U.S. Fish and Wildlife Service, Ash Meadows Fish Conservation Facility, 2-Great Basin Institute, Ash Meadows Fish Conservation Facility, 3-U.S. Fish and Wildlife Service, Pacific Southwest Water and Fisheries Program, 4-U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, 5-National Park Service, Death Valley National Park, 6-Nevada Department of Wildlife, 7-National Park Service, Water Resources Division).

14:30 Cuatro Ciénegas conservation, an update

Valdes Gonzalez, Arcadio^{*1}, Salazar Gonzalez, Manuel¹, Contreras Arquieta, Arturo¹ (1-Facultad de Ciencias Biologicas, UANL, 2-Wildlife photographer, 3-De su Valle).

14:45 Introduced populations as genetic reservoirs for imperiled species: a case study of the Arkansas River shiner, *Notropis girardi*

Osborne, Megan^{*1}, Diver, Tracy¹, Turner, Thomas¹ (1-University of New Mexico).

15:00 Nevada Area Report

Miskow, Eric ^{*1}, Baldino, Cristi², Simons, Lee², Goodchild, Shawn⁴, Guadalupe, Kevin³, Scoppettone, Gary (1-Nevada Natural Heritage Program, 2-U.S. Fish and Wildlife Service, 3-Nevada Department of Wildlife, 4-North Dakota State University, 5-U.S. Geological Service-Reno).

15:15 A tale of missing fins: morphological variation among populations of Amargosa pupfish

Lema, Sean C. ^{*1} (1-California Polytechnic State University, San Luis Obispo).

15:30 Top Gear: Paired gear comparisons for monitoring Rio Grande silvery minnow

Widmer, Ann ^{*1}, Gonzales, Eric J. ¹, Burckhardt, Laura Leslie¹ (1-SWCA Environmental Consultants).

15:45 Refuges for desert pupfish, *Cyprinodon eremus*, and longfin dace, *Agosia chrysogaster*, in Northwestern Sonora

Lopez, Jaime F. ^{*1} (1-Cobach Plantel Sonoyta).

16:00 Native fish conservation and management in the Upper/Middle Rio Grande, Pecos River, Canadian River, Tularosa and Guzman basins, New Mexico during 2013

Platania, Steven P. ^{*1}, Archdeacon, Thomas ², Brandenburg, W. Howard¹, Brooks, James E. ², Caldwell, Colleen A. ³, Caldwell, John ⁴, Carson, Evan W. ⁵, Davenport, Stephen R. ², Dudley, Robert K. ¹, Farrington, Michael A. ¹, Gilbert, Eliza I. ⁴, Lang, Brian K. ⁴, Osborne, Megan J. ⁵, Propst, David L. ⁵, Turner, Thomas F. ⁵ (1- American Southwest Ichthyological Researchers, 2-U.S. Fish and Wildlife Service, New Mexico Fish and Wildlife Conservation Office, 3-New Mexico Cooperative Fish and Wildlife Research Unit, Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, 4-New Mexico Department of Game and Fish, 5-University of New Mexico, Museum of Southwestern Biology).

16:15 México's Northeast Area Report

Lopez, Jaime F. ^{*1} (1-Cobach Plantel Sonoyta).

16:30 Closing Comments and Meeting Wrap-up: Heidi Blasius DFC President

Sunday, November 24, 2013

08:00 - 15:00 Field trip to Bubbling Ponds Native Fish Conservation Facility and Page Springs Hatchery.

Sign-up sheets for fieldtrips will be available during the meeting.