

HANS-WERNER HERRMANN
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EDUCATION

1995 Doctor of Natural Sciences, Ph.D. (Doktor der Naturwissenschaften). Philipps University, Marburg, Germany
Phylogeny of African Vipers: Molecular and Morphological Evidence.

1990 Master of Science (Diplom) in Biology. Philipps University, Marburg, Germany
Molecular Phylogeny of Palaearctic Vipers. Molekulare Phylogenie paläarktischer Vipern.

1986 Bachelor of Science equivalent (Vordiplom) in Biology. Philipps University, Marburg, Germany

CURRENT APPOINTMENT AND EMPLOYMENT HISTORY

2015-present: Research Associate/Research Scientist/Adjunct Lecturer/Designated Campus Colleague,
School of Natural Resources and the Environment, University of Arizona

2011-2015: Associate Research Scientist, School of Plant Sciences
Joint Appointments School of Natural Resources and the Environment and Department of
Soils, Water and Environmental Science, University of Arizona

2007-2011: Assistant Staff Scientist, Arizona Research Laboratories' Human Origins Genotyping
Laboratory, University of Arizona

2007-2011: Joint appointment Research Scientist/Research Associate, School of Natural Resources and
the Environment, University of Arizona

2006-2007: Research Specialist, Arizona Research Laboratories' Genomic Analysis Technology Core,
University of Arizona

2005-2007: Research Associate, School of Natural Resources and the Environment, University of
Arizona

2002-2005: Postdoctoral Research Fellow, Center for Conservation and Science, Zoological Society of
San Diego

1994-2002: Head of the Aquarium and Curator for Fishes, Amphibians, Reptiles and Invertebrates,
Zoological Garden Cologne, Germany. Conservation manager for in-situ projects in
Cameroon and Vietnam.

1996-2004: Adjunct Lecturer, Philipps University, Marburg, Germany. Department of Biology.
Classes: Biology of Amphibians, Biology of Reptiles, Desert Ecology. Zoological Field
Programs for graduate students in Morocco and Namibia, Africa.

CURRENT AND RECENT RESEARCH

- 2020-2022 Molecular phylogeny and species delimitation in *Sonorella* (talus snails) from Arizona. (with Melanie Culver, USGS and School of Natural Resources and the Environment).
- 2018-2020: Status, distribution, habitat, and stressors of the Sonoran talussnail (with Aaron Flesch, School of Natural Resources and the Environment)
- 2014-2015: Potato psyllid and Asian citrus psyllid transcriptomics. (with Judy Brown, Plant Sciences)
- 2011-2015: Begomovirus diversity in cotton and non-cotton crops in Pakistan. (with Judy Brown, Plant Sciences)
- 2007-2015: Whitefly phylogeography in Pakistan, Africa, and globally. Possible hybrids of whitefly biotypes/species in East Africa and their role in a virus pandemic. (with Judy Brown, Plant Sciences)
- 2011-2015: Diversity of a badnavirus in cacao in West Africa. (with Judy Brown, Plant Sciences)
- 2008-2017: Effects of fragmentation on rattlesnake population genetics in a human-dominated landscape.
- 2008-2011: Genetic profiling and monitoring of bushmeat: The provenance of bushmeat in markets, traffic, and the status of bushmeat source populations in Africa.
- 2007-2020: Conservation genetics and population structure of highly endangered Chiricahua leopard frogs (*Rana chiricahuensis*) in New Mexico, Arizona, and Mexico. (with Melanie Culver, School of Natural Resources and the Environment)
- 2005-present: Conservation genetics of the Goliath frog (*Conraua goliath*) in Cameroon.
- 2004-2007: Genetic variation within western *Oxyloma* (Pulmonata: Succineidae) with respect to the federally endangered Kanab ambersnail (*Oxyloma haydeni kanabense*) and the impact of management-controlled Colorado River flows in the Grand Canyon. (with Melanie Culver, School of Natural Resources and the Environment)
- 2006-2007: Phylogeography of the Southwestern Mud Turtle (*Kinosternon sonoriense* LeConte). (with Phil Rosen, School of Natural Resources and the Environment)

RESEARCH GRANTS

- 2021-2022 Arizona Game and Fish Department: Conservation genomics of talus snails in Arizona (with Melanie Culver, USGS and School of Natural Resources and the Environment). CoPI, \$39,000
- 2020 Arizona Game and Fish Department: Conservation genomics of talus snails in Arizona (with Melanie Culver, USGS and School of Natural Resources and the Environment). CoPI, \$8,100

- 2018-2021 Arizona Game and Fish Department, Heritage Fund Grant: Status, distribution, habitat, and stressors of the Sonoran talussnail (with Aaron Flesch, School of Natural Resources and the Environment). Co-PI, \$42,000
- 2013-2015 Arizona Fish and Game Department and US Fish and Wildlife Service Cooperative Task Order: Conservation genetics and population structure of Chiricahua leopard frogs in New Mexico, Arizona and Mexico to include specific DNA markers developed with Next Generation Sequencing technologies. (with Melanie Culver, USGS and School of Natural Resources and the Environment). Co-PI, \$30,000
- 2006-2011 US Fish and Wildlife Service Science Support Partnership Grant: Conservation genetics and population structure of Chiricahua leopard frogs in New Mexico, Arizona and Mexico. (with Melanie Culver, USGS and School of Natural Resources and the Environment). Co-PI, \$75,000
- 2006 Charles H. Lowe Fund, Tucson Herpetological Society: Freshwater Turtle Conservation Genetics in the Southwest. (with Phil Rosen, School of Natural Resources and the Environment). Co-PI, \$500
- 2002-2005 Millennium Fellowship Zoological Society of San Diego: Conservation Biology of the world's largest frog (*Conraua goliath*) in Cameroon. PI, approx. \$300,000
- 1997-2002 Grants from multiple sources including corporate entities (e.g. American Linen Supply Company), German government and private individuals for nature conservation projects in Cameroon and Vietnam. PI: approx. \$150,000
- 1992 DAAD (German Academic Exchange Service) travel and research grant to conduct research in Rwanda and Democratic Republic of Congo. PI, approx. \$3,500
- 1992 DAAD (German Academic Exchange Service) travel and research grant to conduct research at Transvaal Natural History Museum, Pretoria, South Africa and Namibia. Approx. PI, approx. \$4,000
- 1991 DFG (Deutsche Forschungsgemeinschaft) travel and research grant to conduct DNA-DNA hybridization with Dr. Jon Ahlquist, Ohio University, Athens, Ohio. Approx. \$3,000
- 1990-1993 Republic of Germany Ph.D. scholarship (Promotionsstipendium der Studienstiftung des Deutschen Volkes) plus travel grant. Approx. \$30,000
- 1990-1992 State of Hesse Ph.D. scholarship (Promotionsstipendium der Hessischen Graduiertenförderung). Approx. \$15,000

BOOK CHAPTERS

HERRMANN, H.-W. (2016): A molecular perspective on conservation: rattlesnakes as models. In: Schuett, G.W., Feldner, M.J., Smith, C.F. & R.S. Reiserer (eds.): *The Rattlesnakes of Arizona*, Eco Publishing, p. 461-485.

CULVER, M., FITAK, R. & **H.-W. HERRMANN** (2010): Genetic methods for biodiversity assessment. In: Magurran, A.E. & B.J. McGill (eds.): Biological Diversity. Oxford University Press, p. 208-218.

HERRMANN, H.-W. & U. JOGER (1997): Evolution of viperine snakes. in: THORPE, R. S., WÜSTER, W. & A. MALHOTRA (eds.): Venomous Snakes Ecology, Evolution and Snakebite. Symp. zool. Soc. Lond. No. 70: 43-61.

PEER REVIEWED PUBLICATIONS

FRITZ, U., **HERRMANN, H.-W.**, ROSEN, P.C., AUER, M., VARGAS-RAMIREZ, M. & C. KEHLMEIER (2024). *Trachemys* in Mexico and beyond: beautiful turtles, taxonomic nightmare, and a mitochondrial poltergeist (Testudines: Emydidae). Vertebrate Zoology, 74, 435-452.

IQBAL, M.J., REHMAN, Z., ILYAS, M., HAMEED, U., **HERRMANN, H.-W.**, CHINGANDU, N., MANZOOR, M.T., HAIDER, M & J.K. BROWN (2023). Sentinel plot surveillance of cotton leaf curl disease in Pakistan- a case study at the cultivated cotton-wild host plant interface. Virus Research, 333, 199144.

LEVINE, B. A., SCHUETT, G. W., CLARK, R. W., REPP, R. A., **HERRMANN, H.-W.**, & W. BOOTH (2020): No evidence of male-biased sexual selection in a snake with conventional Darwinian sex roles. Royal Society Open Science 7: 201261.

PAREDES-MONTERO, J., REHMAN, Z., HAMEED, U., HAIDER, M., **HERRMANN, H.-W.** & J. BROWN (2020). Genetic variability, community structure, and horizontal transfer of endosymbionts among three Asia II-*Bemisia tabaci* mitotypes in Pakistan. Ecology and Evolution, 10, 2928-2943.

ZANCOLLI, G., CALVETE, J.J., CARDWELL, M.D., GREENE, H.W., HAYES, W., HEGARTY, M.J., **HERRMANN, H.-W.**, HOLYCROSS, A., LANNUTTI, D.I., MULLEY, J., SANZ, L., TRAVIS, Z.D., WHORLEY, J.R., WÜSTER, C.E. & W. WÜSTER (2019). When one phenotype is not enough – divergent evolutionary trajectories govern venom variation in a widespread rattlesnake species. Proceedings of the Royal Society B, 286, 20182735.

PAREDES-MONTERO, J., HAMEED, U., REHMAN, Z., RASOOL, G., HAIDER, M., **HERRMANN, H.-W.** & J. BROWN (2019). Demographic expansion of the pre-dominant *Bemisia tabaci* mitotypes associated with the cotton leaf curl virus in Pakistan. Annals of the Entomological Society of America, 112, 265-280.

CHINGANDU, N., KOUAKOU, K., AKA, R., AMEYEV, G., GUTIERREZ, O.A., **HERRMANN, H.-W.** & J.K. BROWN (2017). The proposed new species, cacao red vein virus, and three previously recognized badnavirus species are associated with cacao swollen shoot disease. Virology Journal, 14, 199212.

HERRMANN, H.-W., POZAROWSKI, K., OCHOA, A., & G.W. SCHUETT (2017). An interstate highway affects gene flow in a top reptilian predator (*Crotalus atrox*) of the Sonoran Desert. Conservation Genetics, 18, 911-924.

DOUGALS, M.R., DAVIS, M.A., AMARELLO, M., SMITH, J.J., SCHUETT, G.W., **HERRMANN, H.-W.**, HOLYCROSS, A.T., & M.E. DOUGLAS (2016). Anthropogenic impacts drive niche and conservation metrics of a cryptic rattlesnake on the Colorado Plateau of western North America. Royal Society Open Science, 3, 160047.

- ZIA-UR-REHMAN, M., HAMEED, U., **HERRMANN, H.-W.**, IQBAL, M.J., HAIDER, M.S., & J.K. BROWN (2015). First detection of *Cotton leaf curl Burewala virus* and cognate *Cotton leaf curl Multan betasatellite* and *Gossypium darwinii symptomless alphasatellite* in symptomatic *Luffa cylindrica* in Pakistan. *Plant Disease* 97, 1122.
- SCHIEDL, D.R., CARD, D.C., ADAMS, R.H., JEZKOVA, T., REYES-VELASCO, J., PROCTOR, F.N., SPENCER, C.L., **HERRMANN, H.-W.**, MACKESSY, S.P., & T.A. CASTOE (2015). Incipient speciation with biased gene flow between two lineages of the Western Diamondback Rattlesnake (*Crotalus atrox*). *Molecular Phylogenetics and Evolution*, 83, 213-223.
- ZIA-UR-REHMAN, M., HAMEED, U., **HERRMANN, H.-W.**, IQBAL, M.J., HAIDER, M.S., & J.K. BROWN (2015). First report of *Chickpea chlorotic dwarf virus* infecting tomato crops in Pakistan. *Plant Disease*, <http://dx.doi.org/10.1094/PDIS-02-15-0202-PDN>.
- BROWN, J.K., **HERRMANN, H.-W.**, ZIA-UR-REHMAN, M., HAMEED, U., & M.S. HAIDER (2014). *Begomovirus* diversity, phylogeography, and population genetics in cultivated and uncultivated plant ecosystems in Pakistan. *Crop Protection* 61, 104.
- CLARK, R.W., SCHUETT, G. W., REPP, R. A., AMARELLO, M., SMITH, C.F., & **H.-W. HERRMANN** (2014): Mating systems, reproductive success, and sexual selection in a secretive species: a case study of the Western diamond-backed rattlesnake, *Crotalus atrox*. *PLoS ONE* 9(3): e90616. doi:10.1371/journal.pone.0090616.
- HAMEED, U., ZIA-UR-REHMAN, M., **HERRMANN, H.-W.**, HAIDER, M.S., & J.K. BROWN (2014). First Report of *Okra enation leaf curl virus* and Associated Cotton leaf curl Multan betasatellite and Cotton leaf curl Multan alphasatellite Infecting Cotton in Pakistan: A New Member of the Cotton Leaf Curl Disease Complex. *Plant Disease* 98, 1447.
- LEGG, J.P., SSERUWAGI, P., BONIFACE, S., OKAO-OKUJA, G., SHIRIMA, R., BIGIRIMANA, GASHAKA, S.G., **HERRMANN, H.-W.**, JEREMIAH, S., OBIERO, H., NDYETABULA, I., TATA-HANGY, W., MASEMBE, C., & J.K. BROWN (2014): Spatio-temporal patterns of genetic change amongst populations of cassava *Bemisia tabaci* whiteflies driving virus pandemics in East and Central Africa. *Virus Research* 186, 61-75.
- HERRMANN, H.-W.** & W. R. BRANCH (2013). Fifty years of herpetological research in the Namib Desert and Namibia with an updated and annotated species checklist. *Journal of Arid Environments* 93, 94-115.
- POZAROWSKI, K., IVY, J., & **H.-W. HERRMANN** (2013): Using rattlesnake microsatellites to determine paternity in captive bushmasters (*Lachesis muta*). *Zoo Biology* 999, 1-3.
- SCHUETT, G.W., REPP, R.A., HOSS, S.K., & **H.-W. HERRMANN** (2013): Environmentally cued parturition in a desert rattlesnake, *Crotalus atrox*. *Biological Journal of the Linnaen Society* 110, 866-877.
- POZAROWSKI, K., BRYAN, D. S., BOSSE, R., WATSON, E., & **H.-W. HERRMANN** (2012). Development of polymorphic microsatellite loci for the rattlesnake species *Crotalus atrox*, *C. cerastes*, and *C. scutulatus* (Viperidae: Crotalinae) and cross-species amplification of microsatellite markers in *Crotalus* and *Sistrurus* species. *Conservation Genetics Resources*, 4(4), 955–961.

- HEKKALA, E. R., SAUMURE, R. A., JAEGER, J. R., **HERRMANN, H.-W.**, SREDL, M. J., BRADFORD, D. F., DRABECK, D., & M. J. BLUM (2011): Resurrecting an extinct species: archival DNA, taxonomy, and conservation of the Vegas Valley leopard frog. *Conservation Genetics* 12, 1379-1385.
- HERRMANN, H.-W.**, SCHMITZ, A., HERRMANN, P. A., & W. BÖHME (2007): Amphibians and reptiles of the Tchabal Mbabo Mtns, Adamaoua Plateau, Cameroon. *Bonner zoologische Beiträge* 55 (1): 2735.
- PLATH, M., **HERRMANN, H.-W.**, & W. BÖHME (2006). New frog species of the genus *Phrynobatrachus* (Anura: Phrynobatrachidae) from Mt Nlonako, Cameroon. *Journal of Herpetology* 40 (4): 486-495.
- Herrmann, H.-W.**, Böhme, W., Euskirchen, O., Herrmann, P. A. & A. Schmitz (2005): African biodiversity hotspots: The reptiles of Mt Nlonako, Cameroon. *Revue suisse de Zoologie*, 112: 1045-1069.
- HERRMANN, H.-W.**, BÖHME, W., HERRMANN, P. A., PLATH, M., SCHMITZ, A. & M. SOLBACH (2005): African biodiversity hotspots: The amphibians of Mt Nlonako, Cameroon. *Salamandra* 41: 61-81.
- HERRMANN, P. A. & **H.-W. HERRMANN** (2005): Egg and Clutch Characteristics of the Mountain Chameleon, *Chamaeleo montium*, in Southwestern Cameroon. *Journal of Herpetology* 39 (1): 154-157.
- Rösler, H., Ziegler, T., Vu Ngoc Thanh, **Herrmann, H.-W.** & W. Böhme (2005): A new lizard of the genus *Gekko* Laurenti, 1768 (Squamata: Sauria: Gekkonidae) from the Phong Nha – Ke Bang National Park, Quang Binh Province, Vietnam. *Bonner zoologische Beiträge* 53: 135-148.
- HERRMANN, H.-W.**, HERRMANN, P. A., SCHMITZ, A. & W. BÖHME (2004): A new frog species of the genus *Cardioglossa* from the Tchabal Mbabo Mtns, Cameroon. *Herpetozoa* 17 (3/4): 119-125.
- HERRMANN, H.-W.**, ZIEGLER, T., MALHOTRA A., THORPE R. & C. L. PARKINSON (2004): Redescription and systematics of *Trimeresurus cornutus* (Serpentes: Viperidae) based on morphology and molecular data. *Herpetologica* 60 (2): 211-221.
- PLATH, M., SOLBACH, M. & **H.-W. HERRMANN** (2004): Anuran habitat selection and temporal partitioning in a montane and submontane rainforest in Southwestern Cameroon – first results. *Salamandra* 40(3/4): 239-260.
- ZIEGLER, T., **HERRMANN, H.-W.**, VU NGOC THANH, LE KHAC QUYET, NGUYEN TAN HIEP, CAO XUAN CHINH, LUU MINH THANH & DINH HUY TRI (2004): The amphibians and reptiles of the Phong Nha – Ke Bang National Park, Quang Binh Province, Vietnam. *Hamadryad, Tamil Nadu* 28 (1-2): 19-42.
- HERRMANN, P. A. & **H.-W. HERRMANN** (2003): New records and natural history notes for amphibians and reptiles from Southern Morocco. *Herpetological Review* 34 (1): 76-77.
- MEBS, D., KUCH, U., **HERRMANN, H.-W.** & T. ZIEGLER (2003): Biochemical and biological activities of the venom of a new species of pitviper from Vietnam, *Triceratolepidophis sieversorum*. *Toxicon* 41: 139-143.

- HERRMANN, H.-W.**, ZIEGLER, T., STUART, B. L. & N. L. ORLOV (2002): New findings on the distribution, morphology and natural history of *Triceratolepidophis sieversorum* (Serpentes: Viperidae). Herpetological Natural History 9 (1): 89-94.
- FRITZ, U., ZIEGLER, T., **HERRMANN, H.-W.** & E. LEHR (2002): Intergradation between subspecies of *Cuora galbinifrons* BOURRET, 1939 and *Pyxidea mouhotii* (GRAY, 1862) in southern North Vietnam (Reptilia: Testudines: Geoemydidae). Faunistische Abhandlungen, Staatliches Museum für Tierkunde, Dresden 23: 59-74.
- HARBORT, J. & **H.-W. HERRMANN** (2002): Untersuchungen an ausgewählten Chamäleon-Populationen am Mt. Nlonako/Kamerun mit Bemerkungen zu einem *Chamaeleo camerunensis*. Herpetofauna, Weinstadt 24 (140): 25-34. (Observations on selected chameleon populations at Mt Nlonako/Cameroon with comments on a *Chamaeleo camerunensis*.)
- ZIEGLER, T., RÖSLER, H., **HERRMANN, H.-W.** & VU NGOC THANH (2002): *Cyrtodactylus phongnhakebangensis* sp. n., ein neuer Bogenfingergecko aus dem annamitischen Karstwaldmassiv, Vietnam. Herpetofauna, Weinstadt 24 (141): 11-25. (*Cyrtodactylus phongnhakebangensis* sp. n., a new bent-toed gecko from the Annamite karst forest massif, Vietnam.)
- HERRMANN, H.-W.**, BÖHME, W. & P. HERRMANN (2000): The ALSOCO Cameroon expedition 1998: The sampling of a mountain rainforest. Bonn. zool. Monogr. 46: 95-103.
- HERRMANN, H.-W.**, HERRMANN, P. & P. GENIEZ (2000): Zur Verbreitung von *Echis leucogaster* ROMAN, 1972 in Marokko. Salamandra 36 (2): 203-207. (On the distribution of *Echis leucogaster* ROMAN, 1972 in Morocco.)
- ZIEGLER, T. & **H.-W. HERRMANN** (2000): Preliminary list of the herpetofauna of the Phong Nha – Ke Bang area in Quang Binh province, Vietnam. Biogeographica 76 (2): 49-62.
- ZIEGLER, T., **HERRMANN, H.-W.***, DAVID, P., ORLOV, N. & O. PAUWELS (2000): *Triceratolepidophis sieversorum*, a new genus and species of pitviper (Reptilia: Serpentes: Viperidae: Crotalinae) from Vietnam. Russian Journal of Herpetology 7 (3): 199-214. *The first two authors contributed equally to this paper.
- HERRMANN, H.-W.**, JOGER, U., LENK, P. & M. WINK (1999): Morphological and molecular phylogenies of viperines: Conflicting evidence? Kaupia 8: 21-30.
- JOGER, U., **HERRMANN, H.-W.**, KALYABINA, S., LENK, P. & M. WINK (1999): Molecular phylogeny and systematics of true vipers (Reptilia: Viperinae) – a multi-dimensional approach. Zoology 102. Supplement II (DZG 92.1)
- LENK, P., **HERRMANN, H.-W.**, JOGER, U. & M. WINK (1999): Phylogeny and taxonomic subdivision of *Bitis* (Reptilia: Viperidae) based on molecular evidence. Kaupia 8: 31-38.
- NILSON, G., TUNIYEV, B., ANDRÉN, C., ORLOV, N., JOGER, U. & **H.-W. HERRMANN** (1999): Taxonomic position of the *Vipera xanthina* complex. Kaupia 8: 99-102.

MEBS, D., HOLADA, K., KORNALIK, F., SIMAK, J., VANKOVA, H., MÜLLER, D., SCHOENEMANN, H., LANGE, H. & **H.-W. HERRMANN** (1998): Severe coagulopathy after a bite of a Green bush viper (*Atheris squamiger*): Case report and biochemical analysis of the venom. *Toxicon* 36 (10): 1333-1340.

HERRMANN, H.-W. & U. JOGER (1995): Molecular data on the phylogeny of African vipers - preliminary results. in: LLORENTE et al. (eds.). *Scientia Herpetologica*: 92-97.

JOGER U. & **H.-W. HERRMANN** (1993): Ein immunologisch rekonstruierter Stammbaum der paläarktischen Vipern (Viperinae). *Verhandlungen der Deutschen Zoologischen Gesellschaft* 86: 52. (A immunologically reconstructed dendrogram of palaeartic vipers (Viperinae).)

HERRMANN, H.-W. (1993): Bemerkungen zum Beutespektrum von *Vipera monticola*. *Salamandra* 29 (1): 90-91. (Remarks on the prey items of *Vipera monticola*.)

HERRMANN, H.-W., JOGER, U. & G. NILSON (1992): Molecular phylogeny and systematics of viperine snakes I: General phylogeny of European vipers (*Vipera sensu strictu*). in: KORSÓS, Z. & I. KISS (eds.): *Proc. 6th Ord. Gen. Meet. S.E.H., Budapest*: 219-224.

HERRMANN, H.-W., JOGER, U. & G. NILSON (1992): Molecular phylogeny and systematics of viperine snakes III: Resurrection of the genus *Macrovipera* (REUSS, 1927) as suggested by biochemical evidence. *Amphibia-Reptilia* 13: 375-392.

JOGER, U., **HERRMANN, H.-W.** & G. NILSON (1992): Molecular phylogeny and systematics of viperine snakes II: A revision of the *Vipera ursinii* complex. in: KORSÓS, Z. & I. KISS (eds.): *Proc. 6th Ord. Gen. Meet. S.E.H., Budapest*: 239-244.

HERRMANN, H.-W., JOGER, U., NILSON, G. & C. SIBLEY (1987): First steps towards a biochemical reconstruction of the phylogeny of the genus *Vipera*. in: VAN GELDER, J.J., STRIJBOSCH, H. & P.J.M. BERGERS (eds): *Proc. 4th Ord. Gen. Meet. S.E.H., Nijmegen*: 195-200.

BOOK REVIEWS

Herrmann, H.-W. (2012). Book review. *Old World Vipers: A Natural History of the Azemiopinae and Viperine*. T. Phelps. *Herpetological Review* 43, 503-505.

Herrmann, H.-W. (2011). Book review. *Snakes: Ecology and Conservation*. Mullin S.J. & R.A. Seigel (eds.). *Sonoran Herpetologist* 24(1), 6-7.

REVIEWER SERVICE

2000-2002 Section editor *Salamandra*, Research Journal of the German Herpetological Society (DGHT)

Reviewer for PLOSone, Molecular Ecology; Conservation Genetics; Biological Control; Infection, Genetics, and Evolution; *Herpetologica*; *Copeia*; *Journal of Herpetology*; *Amphibia-Reptilia*; *Salamandra*; *Kaupia*; *Diversity*.

NATURAL HISTORY AND CONSERVATION NOTES

- HERRMANN, H.-W.** & P. C. ROSEN (2009): Conservation of aridlands turtles III: Preliminary genetic studies of the Desert box turtle and Yaqui slider. *Sonoran Herpetologist* 22: 38-43.
- HERRMANN, H.-W.** (2008): Zoo-based in-situ herpetology: setting baselines in Western Cameroon. *Herpetological Review* 39 (1): 13-15.
- ROSEN, P.C. & **H.-W. Herrmann** (2008): Aridlands turtles in Southwestern North America. I. Definition and description of the fauna. *Sonoran Herpetologist* 21: 118-122.
- HERRMANN, H.-W.** & T. EDWARDS (2006): *Conraua goliath* (Goliath frog). Skittering locomotion. *Herpetological Review* 37 (2): 202-203.
- HERRMANN, H.-W.**, HERRMANN, P. A. & V. WALLACH (2004): *Leptotyphlops sundewalli gestri* (Sundevall's Worm Snake). Distribution. *Herpetological Review* 35(4): 411.
- HERRMANN, H.-W.** & P. A. HERRMANN (2002): Herpetological conservation at the Cologne Zoo. *Herpetological Review*. 33 (3): 168-169.
- ZIEGLER, T. & **H.-W. HERRMANN** (2002): Wiederentdeckung zweier gehörnter Grubenotterarten in Vietnam. *Mitteilungen Zoologische Gesellschaft für Arten- und Populationsschutz e.V.* 18 (2): 24-26. (Re-discovery of two horned pitviper species in Vietnam.)
- ZIEGLER, T., **HERRMANN, H.-W.** & J. KÖHLER (2002): *Racophorus orlovi* (Orlov's Tree Frog). Distribution. *Herpetological Review* 33 (2): 146.
- KOLTER, L., KAUMANN, W. & **H.-W. HERRMANN** (2001): Forschung im Zoologischen Garten Köln. *Zeitschrift des Kölner Zoo* 44 (2): 83-96. (Research in the Zoological Garden Cologne.)
- HERRMANN, H.-W.** & T. PAGEL (2000): Phong Nha – Ke Bang: Ein Naturschutzprojekt des Kölner Zoo in Zentralvietnam. *Zeitschrift des Kölner Zoo* 43 (2): 79-88. (Phong Nha – Ke Bang: A nature conservation project by Cologne Zoo in Central Vietnam.)
- HERRMANN, H.-W.** (1999): Husbandry and captive breeding of the Water monitor, *Varanus salvator* (Reptilia: Sauria: Varanidae) at the Cologne Aquarium (Cologne Zoo). HORN, H.-G. & W. BÖHME (eds.): *Advances in monitor research II. – Mertensiella* 11: 95-103.
- HERRMANN, H.-W.**, HERRMANN, P. & W. BÖHME (1999): Die ALSCO-Kamerun-Expedition I: Amphibien und Reptilien vom Mt. Nlonako. *Zeitschrift des Kölner Zoo* 42 (4): 181-197. (The ALSCO Cameroon expedition I: Amphibians and reptiles of Mt. Nlonako.)
- HERRMANN, P. & **H.-W. HERRMANN** (1999): The ALSCO Cameroon chameleon expedition: A rainforest survey on Mount Nlonako. *Sonoran Herpetologist* 12 (9).
- HERRMANN, H.-W.** (1998): Der Hühnerfresser *Spilotes pullatus* im Kölner Aquarium am Zoo – Haltung und Reproduktion. *Zeitschrift des Kölner Zoo* 41 (3): 139-144. (The rat snake *Spilotes pullatus* at the Cologne Aquarium – husbandry and reproduction.)

HERRMANN, H.-W. (1998): *Holaspis guentheri laevis* (East African fringe-tailed forest lizard).
Reproduction. Herpetological Review 29 (4): 238.

TECHNICAL REPORTS

Herrmann, H.-W., Vargas, K.L., & M. Culver (2022): Molecular phylogeny and species delimitation in *Sonorella* (talus snails) from Arizona. Report to Arizona Game & Fish Department, Phoenix. 57 pp.

Herrmann, H.-W., Vargas, K.L., & M. Culver (2022): Molecular phylogeny and species delimitation of *Ashmunella* (Woodland snails) from the H7uachuca and Chiricahua Mountains in southeastern Arizona. Report to Arizona Game & Fish Department, Phoenix. 29 pp.

Herrmann, H.-W., & M. Culver (2020): First steps towards a molecular phylogeny and species delimitation in *Sonorella* (talus snails). Report to Arizona Game & Fish Department, Phoenix. 29 pp.

Herrmann, H.-W., Vargas, K.L., & M. Culver (2020): The conservation genetics of the Chiricahua leopard frog (*Rana chiricahuensis*): refining our understanding of phylogenetic relationships and population genetics to inform the management of the species. Report to Arizona Game & Fish Department, Phoenix. 82 pp.

Culver, M., **Herrmann, H.-W.**, Miller, M., Roth, B. & J. Sorensen (2013): Anatomical and genetic variation of western *Oxyloma* (Pulmonata: Succineidae) concerning the endangered Kanab ambersnail (*Oxyloma haydeni kanabense*) in Arizona and Utah. U.S. Geological Survey Scientific Investigations Report, 2013–5164, 66 p.

Rosen, P.C., **Herrmann, H.-W.** & C. Melendez (2006): Phylogeography of the Southwestern Mud Turtle (*Kinosternon sonoriense* LeConte). Final Report to Arizona Game & Fish Department, Phoenix. 22 pp.

TEACHING AND INSTRUCTION

2015 Development and implementation of the University of Arizona Undergraduate Certificate **International Environmental Conservation**. (with Tom Wilson, Department of Soil, Water, and Environmental Science)

2008-present: Faculty director of RNR495/595: Field studies in developing countries: Desert ecology and conservation biology in Namibia. (every year since 12 years)

2018 Faculty director of RNR495/595: Field studies in developing countries: Conservation studies in Vietnam.

2015-2016: Co-instructor of SWES 495F/595F: Environmental conservation in Australia. (with Tom Wilson, Honors College, University of Arizona)

- 2013-present: Faculty director of RNR 495F/595F: Field studies in developing countries: Amazon Rainforest Conservation Biology in Ecuador.
- 2008-2018: Academic project mentor for numerous undergraduate students for independent study projects (College of Science), Honors Thesis

TEACHING GRANTS

- 2015 University of Arizona 100% Engagement Grant to develop a Study Abroad Program “Environmental Conservation) in Australia in connection with the new University of Arizona undergraduate certificate: International Environmental Conservation. (with Tom Wilson, Department of Soil, Water, and Environmental Science). Co-PI, \$15,000

COMMITTEE SERVICE

- 2014-2016: PhD committee member for Nomatter Chingandu and Jorge Paredes in Plant Sciences
- 2009-2011: Graduate Student Committee for Krystyn Pozarowski (Molecular and Cellular Biology). MSc thesis: The Population Genetics of Three *Crotalus* Species in a Sonoran Desert Habitat with Emphasis on the Possible Effects of Anthropogenic Barriers on Genetic Structure and Venom Composition
- 2002-2003: Graduate Student Committee for Mirco Plath, Phillips University, Marburg, Germany. MSc thesis: Räumliche Verteilungsmuster der Anurengesellschaft eines Fließgewässers im Tieflandregenwald am Mt. Nlonako/Kamerun unter Berücksichtigung populationsökologischer Aspekte. (Spatial Patterns in an Anuran Community along a stream in the Lowland Rainforest at Mt Nlonako/Cameroon under Consideration of Population Ecological Aspects)
- 2002-2003: Graduate Student Committee for Markus Solbach, Phillips University, Marburg, Germany. MSc thesis: Systematik und Ökologie der Batrachofauna einer montanen Regenwaldregion am Mt. Nlonako in Westkamerun. (Systematics and Ecology of the Batrachofauna in a Montane Rainforest Region at Mt Nlonako, Western Cameroon)

INTERNATIONAL EXPERIENCE

- 2015/16 **Cameroon**, conservation biology research and project development in collaboration with IRAD Research institute in Cameroon (1-2 months)
- 2015-2018 **Australia**, Co-instructor and developing, University of Arizona, SWES 495F/595F: Environmental Conservation in Australia (4 weeks/year)
- 2013-present **Ecuador**, Instructor, University of Arizona, SWES 495F/595F: Field studies in developing countries: Amazon Rainforest Conservation Biology in Ecuador (2-3 weeks/year)

- 2010 **Australia**, assisting Dr. Freek Vonk, University of Leiden, Netherlands, in field aspects of research on venom from elapid snakes (one month)
- 2008-present **Namibia**, Faculty director, University of Arizona, RNR495/595: Field studies in developing countries: Desert ecology and conservation biology in Namibia (6 weeks/year)
- 2002-2004 **Cameroon**, Permanent resident: conservation biology research
Namibia, field program director, University of Marburg graduate student zoological excursion to Namibia (one month)
- 2001 **Cameroon**, Conservation project, herpetological and mammal survey (two surveys, total ten weeks)
Morocco, Field program director, University of Marburg graduate student zoological excursion to Morocco (one month)
- 2000 **Cameroon, Africa**, Conservation project and herpetological survey (one month)
- 1999 **Vietnam**, Conservation project and herpetological survey Phong Nha-Ke Bang National Park, Center for Natural Resources and Environmental Sciences (CRES), University of Hanoi (one month)
- 1998 **Vietnam**, Conservation project and herpetological survey Phong Nha-Ke Bang National Park, Center for Natural Resources and Environmental Sciences (CRES), University of Hanoi (one month)
- 1997 **Kenya**, Research on the systematics of African vipers, Natural History Museum, Nairobi. Multiple field research projects (one month)
- 1995 **South Africa and Namibia**, Research on the systematics of African vipers, Transvaal Natural History Museum, Pretoria. Multiple field research projects (six weeks)
- 1992 **South Africa and Namibia**, Research on the systematics of African vipers, Transvaal Natural History Museum, Pretoria. Multiple field research projects (four months)
Rwanda and Democratic Republic of Congo, Research on the systematics of African vipers. Multiple field research projects (three months)
- 1990 **Egypt**, Herpetological survey, GTZ (German Society for Technical Cooperation), Cairo (one month)
- 1989 **Jordan and Israel**, Herpetological survey, University of Jordan, Amman, Jordan (one month)
- 1985 **Morocco**, Herpetological survey, Alexander Koenig Museum and Research Institution, Bonn, Germany (three months)

MEETINGS AND PRESENTATIONS

- HERRMANN, H.-W.:** An interstate highway affects gene flow in a top reptilian predator (*Crotalus atrox*) of the Sonoran Desert. Biology of Snakes Meeting, July 2017, Rodeo, New Mexico.
- HERRMANN, H.-W.:** A molecular perspective on conservation: rattlesnakes as models. Biology of Snakes Meeting, July 2017, Rodeo, New Mexico.
- HERRMANN, H.-W.:** An interstate runs through it: roads are a barrier to gene flow in rattlesnakes? Department of Soil, Water and Environmental Sciences Seminar, University of Arizona, October 2014.
- DOUGLAS, M.E., DAVIS, M.A., DOUGLAS, M.R., AMARELLO, M., SMITH, J.J., **HERRMANN, H.-W.**, & G.W. SCHUETT. From Pleistocene to Anthropocene: climate change and its impact on the distribution of the Arizona Black Rattlesnake (*Crotalus cerberus*). JMIH, Chattanooga, Tennessee, July 2014
- Schild, D.R, Reyes-Velasco, J., Card, D.C, Proctor, F.N., Jezkova, T., Spencer, C.L., **Herrmann, H.-W.**, Mackessy, S.P., & T.A. Castoe. Using genome-wide single nucleotide polymorphisms to estimate patterns of gene flow and population structure in *Crotalus atrox*. Biology of the Pitvipers 2 conference, Tulsa, Oklahoma, 4-7 June 2014.
- Schuett, G.W., Clark, R.W., Repp, R.A., Amarello, M., Smith, C.F., & **H.-W. Herrmann**. Mating systems, reproductive success, and sexual selection in secretive species: a case study of the western diamond-backed rattlesnake, *Crotalus atrox*. Biology of the Pitvipers 2 conference, Tulsa, Oklahoma, 4-7 June 2014.
- Schuett, G.W., Clark, R.W., Repp, R.A., Smith, C.F., Amarello, M., Douglas, M.R., Douglas, M.E., & **H.W. Herrmann**. Communal winter denning in Western Diamond-backed Rattlesnakes (*Crotalus atrox*): Molecular evidence for kin-related social structure. Biology of the Pitvipers 2 conference, Tulsa, Oklahoma, 4-7 June 2014.
- DOUGLAS, M.E., DAVIS, M.A., DOUGLAS, M.R., AMARELLO, M., SMITH, J.J., **HERRMANN, H.-W.**, & G.W. SCHUETT. From Pleistocene to Anthropocene: climate change and its impact on the distribution of the Arizona Black Rattlesnake (*Crotalus cerberus*). Biology of the Pitvipers 2 conference, Tulsa, Oklahoma, 4-7 June 2014.
- HERRMANN, H.-W.** & K. POZAROWSKI: An interstate runs through it: Roads as barriers to gene flow in rattlesnakes? May 2013, invited, symposium “Systematics, Behavior and Natural History of Reptiles in the Age of Genomics”, Wofford College, Spartanburg, South Carolina.
- HERRMANN, H.-W.:** Conservation in developing countries: A herpetological hotspot in Vietnam. December 2005; invited seminar, School of Natural Resources, University of Arizona.
- HERRMANN, H.-W.:** Resolving taxonomic uncertainties and defining management units. November 2005, guest lecture for Conservation Genetics, School of Natural Resources, University of Arizona.
- HERRMANN, H.-W.:** Kanab amber snails and the management of the Grand Canyon. September 2005; guest lecture for Conservation Biology, Department of Ecology and Evolutionary Biology, University of Arizona.

- HERRMANN, H.-W.:** Phong Nha-Ke Bang: A nature conservation project in Vietnam. August 2005, Tucson Herpetological Society.
- HERRMANN, H.-W.:** Conservation biology of Goliath frogs. Conservation Symposium, September 2003, Center for the Reproduction of Endangered Species, San Diego, USA.
- HERRMANN, H.-W.:** Conservation research in Cameroon and Vietnam. Invited presentation April 2002, Center for the Reproduction of Endangered Species, San Diego, USA.
- PLATH, M., SOLBACH, M., BECK L. & **H.-W. HERRMANN:** Habitat selection by anuran species in a montane rainforest in Southwestern Cameroon. Fourth World Congress of Herpetology, December 2001, Bentota, Sri Lanka. (poster)
- HARBORT, J., BECK L. & **H.-W. HERRMANN:** Perching height of *Chamealeo* species in a Cameroon montane rainforest with comments on *C. camerunensis*. Fourth World Congress of Herpetology, December 2001, Bentota, Sri Lanka. (poster)
- HERRMANN, P. & **H.-W. HERRMANN:** Herpetofauna of Morocco. Tucson Herpetological Society, Tucson, Arizona 18 April 2000.
- HERRMANN, H.-W.:** Looking out for biodiversity – Cologne Zoo and herps of Cameroon and Vietnam. Universidad de Chile, Santiago, Chile 13 August 1999.
- HERRMANN, H.-W., BÖHME, W. & P. HERRMANN:** The ALSCO Cameroon expedition 1998: The sampling of a mountain rainforest. 4th International Symposium of Isolated Vertebrate Communities in the Tropics, Bonn, Germany 13-17 May 1999. (poster)
- HERRMANN, P. & **H.-W. HERRMANN:** The ALSCO Cameroon expedition: A rainforest herpetological survey on Mount Nlonako. Tucson Herpetological Society, Tucson, Arizona, 20 April 1999.
- ZIEGLER, T. & **H.-W. HERRMANN:** Preliminary list of the herpetofauna of the Phong Nha – Ke Bang area, Quang Binh province, Vietnam. 10th Ordinary General Meeting Societas Europaea Herpetologica (SEH) Irakleio, Greece 6-10 September 1999. (poster)
- HERRMANN, H.-W.:** Biologie, Haltung und Zucht afrikanischer Schildnasenkobras, *Aspidelaps lubricus infuscatus*. DGHT Jahrestagung 2-6 September 1998, Kassel. (Biology, husbandry and reproduction of African shield nosed cobras, *Aspidelaps lubricus infuscatus*. German Herpetological Society Annual Meeting).
- HERRMANN, H.-W.:** Cologne Zoo goes conservation – in-situ conservation activities in Vietnam. 9th Ordinary General Meeting Societas Europaea Herpetologica (SEH) Chambéry, France 25-28 August 1998. (poster)
- HERRMANN, H.-W.:** Schlangen der Gattung *Atheris*. DGHT Jahrestagung 10-14 September 1997, Dormagen. (Snakes of the genus *Atheris*. German Herpetological Society Annual Meeting).
- HERRMANN, H.-W.:** Husbandry and captive breeding of the Water monitor *Varanus salvator* at the Cologne Aquarium. International Symposium on Varanids in Bonn, 12-14 August 1997. (poster)

- HERRMANN, H.-W.** & H. JES: Long-term husbandry and reproduction of captive Dwarf caimans *Paleosuchus palpebrosus*. Third World Congress of Herpetology, 2-10 August 1997, Prague, Czech Republic.
- HERRMANN, H.-W.**, JOGER, U. & P. LENK: Morphological and molecular phylogenies of viperines: conflicting evidence? Third World Congress of Herpetology 2-10 August 1997, Prague, Czech Republic.
- LENK, P., **HERRMANN, H.-W.** & U. JOGER: Phylogeny and systematics of *Bitis* based on molecular evidence. Third World Congress of Herpetology 2-10-August 1997, Prague, Czech Republic.
- SIMAK, J., HOLADA, K., KORNALIK, F., **HERRMANN, H.-W.**, KUCEROVA, Z., MEBS, D., VANKOVA, H. & H. ZDARSKA: Blood platelet activation by venoms of Bush vipers (*Atheris*). Third World Congress of Herpetology 2-10 August 1997, Prague, Czech Republic.
- HERRMANN, H.-W.**: Phylogeny of African Vipers, molecular and morphological evidence. Fourth Herpetological Association of Africa Symposium on African Herpetology, St. Lucia, KwazuluNatal, South Africa 22-27 August 1995.
- HERRMANN, H.-W.** & H. JES: Weitere Erfahrungen bei der Zucht des Bindenwarans (*Varanus salvator*). DGHT Jahrestagung Speyer vom 13-17 September 1995. (Further information on breeding Water monitors (*Varanus salvator*). German Herpetological Society Annual Meeting, Speyer 1995.)
- HERRMANN, H.-W.** & U. JOGER: Evolution of viperine snakes. London Zoological Society, "Venomous Snakes Symposium," London 27/28 April 1995.

LANGUAGES

Fluent **German** and **English**, good **French**, basic **Spanish**.