

Curriculum Vitae
SCOTT ALLEN SCHAEFER

PERSONAL

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Central Park West at 79th Street Voice: 212-769-5652
New York, NY 10024-5192 Mobile: 215-570-2943

EDUCATION

Ph.D. Evolutionary Biology, *University of Chicago*, 1986.
 Faculty advisors: Dr. G.V. Lauder, Dr. R.K. Johnson
 Dissertation: *Historical Biology of the Loricariid Catfishes: Phylogenetics and Functional Morphology*

M.S. Marine Science, *University of South Carolina*, 1982.
 Faculty advisor: Dr. J.M. Dean
 Thesis: *Variability in Abundance of the Summer-Spawned Ichthyoplankton Community of North Inlet Estuary, South Carolina*

B.S. Zoology, *Ohio State University*, 1980.

POSTDOCTORAL

1987-1988 Smithsonian Postdoctoral Fellow, Dept. of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution.

1986-1987 Postdoctoral Fellow in Ichthyology, Natural History Museum of Los Angeles County.

PROFESSIONAL APPOINTMENTS

2021- Director, Sackler Institute for Comparative Genomics, American Museum of Natural History.

2015- Dean of Science for Collections, Exhibitions, and the Public Understanding of Science, American Museum of Natural History.

2010-2015 Associate Dean of Science for Collections, American Museum of Natural History.

2008- Professor, Richard Gilder Graduate School, American Museum of Natural History.

2003- Curator, American Museum of Natural History.

2001-08, Curator-in-Charge, Dept. of Ichthyology, American Museum of Natural History.
2019-

1996-2003 Associate Curator, American Museum of Natural History.

1994-1996 Associate Curator, Academy of Natural Sciences of Philadelphia.

1991-1996 Chairman, Dept. of Ichthyology, Academy of Natural Sciences of Philadelphia.

1988-1993 Assistant Curator, Academy of Natural Sciences of Philadelphia.

ACADEMIC AND ADJUNCT APPOINTMENTS

2005 External Thesis Examiner, E.R. Swartz, PhD candidate in molecular genetics, "Phylogenetics, phylogeography and evolution of the redfins (Teleostei, Cyprinidae, *Pseudobarbus*) from southern Africa, University of Pretoria, South Africa.

2001- Investigador Asociado, Instituto de Zoología Tropical, Facultad de Ciencias, Universidad Central de Venezuela.

1999- Adjunct Research Scientist, Center for Environmental Research & Conservation, Columbia University.

1998- Adjunct Associate Professor, Graduate School and University Center, City Univ. of New York.

1998- Research Associate, Department of Ichthyology, Academy of Natural Sciences of Philadelphia.

1992-1996 Adjunct Assistant Professor, Dept. of Biology, University of Pennsylvania.

GRANTS

- 2022 NSF OAC 2232857, "Research Infrastructure: CC* Data Storage: Multi-Petabyte Open Storage (MPOS) at the American Museum of Natural History", 9/2022-8/2024, \$498,202 (S. Schaefer, co-PI w/ J. Montes, M. Benedetto).
- 2014 NSF DBI 1418726, "Collaborative Research: A Climate Station Network for the Chiricahua Sky Island Ecoregion", 8/2014-7/2018, \$124,513 (S. Schaefer, PI [admin replacement], M.R. Stromberg, co-PI).
- 2012 Constantine S. Niarcos Foundation, "Andean Fishes and the Biogeographic Impact of the Huancabamba Depression, northern Peru", \$28,110.
- 2003 NSF DEB 03-14849, "REVSYS: Revisionary Systematics of the Andean Astroblepid Catfishes (Teleostei: Siluriformes)", 9/03-8/08, \$199,539.
- 2000 Constantine S. Niarcos Foundation, "Niarcos Expedition to Venezuela—Survey of the upper Río Cuao", joint project AMNH/MBUCV, Universidad Central de Venezuela, \$25,000.
- 1998 Center for Biodiversity & Conservation, American Museum of Natural History, "Fishes of Inundated Tropical Savannas: Diversity and Endemism in the Serrania Huanchaca of eastern Bolivia", 8/98, \$42,709.
- 1996 NSF DEB 96-96263, "Collaborative Research: NEODAT II: An Inter-Institutional Database of Fish Biodiversity in the Neotropics", 3/96-2/99, \$374,931 (AMNH \$20,090 subgrant; with W.L. Fink and J.M. Humphries, co-PIs).
- 1992 NSF DEB 91-19651, "Phylogenetics and Historical Biogeography of *Otocinclus*", 3/92-2/95, \$135,501.
- 1991 NSF DEB 91-01825, "Support for Upgrade of the Ichthyology Database of the Academy of Natural Sciences of Philadelphia", 9/91-2/95, \$135,606 with one award supplement.
- 1991 NSF DEB 90-24797, "An Inter-Institutional Database of Fish Biodiversity in the Neotropics", 9/91-8/94, \$263,906 (with W.L. Fink and J.M. Humphries, co-PIs).
- 1989 The Eppley Foundation for Research, "Biodiversity of the Rio Orinoco: A contribution to the knowledge of the freshwater fish fauna", \$12,384.
- 1988 NSF BSR 88-00211, Postdoctoral Research Fellowship in Environmental Biology, \$52,800 (fellowship declined in favor of employment).
- 1985 Theodore Roosevelt Memorial Fund Research Grant, American Museum of Natural History, \$1000.
- 1985 Eli A. Nierman Foundation Research Award, Univ. of Chicago, \$1000.
- 1984 T.J. Dee Scholarship Grant, Field Museum of Natural History, \$6800.

TEACHING EXPERIENCE

- 1990 Bio 418, "Logic of Phylogenetic Inference", Univ. of Pennsylvania.
- 1985 Advanced Invertebrate Biology, Univ. of Chicago.
- 1984 The Animal Kingdom, Univ. of Chicago.
Chordate Anatomy, Univ. of Chicago.
- 1982 Physical and Chemical Oceanography (laboratory), Univ. of South Carolina
- 1982 Laboratory Curator and Instructor, Biology of Marine Organisms (laboratory), Univ. of South Carolina.
- 1981 Biology of Marine Organisms (laboratory), Univ. of South Carolina.
- 1980 The Present-Day Marine Environment (laboratory), Univ. of South Carolina.

GRADUATE STUDENTS & POSTDOCTORAL SCHOLARS

Graduate Students

- Elisabeth Henschel, UF Rio de Janeiro (Ph.D. external co-advisor, 2018-)
- Jairo Arroyave Gutierrez, AMNH-CUNY (Ph.D. advisor, 2007- 2013)
- Hugo Escobar, AMNH-CUNY (Ph.D. dissertation committee member, 2009-2011)

Jennifer Lane, CUNY-AMNH (Ph.D. thesis exam committee, 2006)
W. Leo Smith, Columbia Univ. (Ph.D. committee, 2000-05)
Robert Schelly, Columbia Univ. (Ph.D. committee, 2000-06)
Marcelo Carvalho, CUNY-AMNH (Ph.D. committee, 1998)
Melissa Tarby, Villanova Univ. (M.S. committee, 1997-98)
Abebe Getahun, CUNY-AMNH (Ph.D. committee, 1997)
Gregory Haenel, Univ. Penn. (Ph.D. committee, 1996)

Postdoctoral Fellows

Nathan Lujan, AMNH Gerstner Scholar, Richard Gilder Graduate School, 2018-20
Luis Fernández, AMNH Kalbfleisch Fellow, 2006-08
Daniela Calcagnotto, AMNH Monell Fellow, 2001-02
Christopher Fielitz, AMNH Kalbfleisch Fellow, 1999-2000
Adriana Aquino, AMNH Starr Fellow, CONICET Fellow, 1997-2000
Paulo A. Buckup, ANSP Neodat Project, 1991-94

EDITORIAL

Editor and Chief Executive Officer, *Copeia*, journal of the American Society of Ichthyologists & Herpetologists, 2005-2011.
General Ichthyology Editor, *Copeia*, journal of the American Society of Ichthyologists & Herpetologists, 1998-2002.
Editorial Board, *Copeia*, journal of the American Society of Ichthyologists & Herpetologists, 1997-1998.
Assistant Editor, *Cladistics*, journal of the Willi Hennig Society, 1994.
Scientific Committee Member, *Revista de Estudios Orinoquenses* (Journal of Orinoco-Region Studies), Instituto de Estudios de la Orinoquía (IEO), Universidad Nacional de Colombia, Bogota, 2010-present.

SERVICE

Natural Science Collections Alliance (<http://nscalliance.org>)
Vice President, 2011-2015.
Board of Directors, 2016-.

National Science Foundation
Ad-Hoc Advisory Panelist, DEB Biotic Surveys and Inventories, February 1992, 1993, 1994;
Systematic Biology, April 1995, 2006.

American Society of Ichthyologists and Herpetologists
Editor, *Copeia*, 2005-2011; Editorial Policy Committee, 1998-2002, Chair 2005-2011;
Copeia Review Committee, 2005; Board of Governors, 2012-2016; *ex officio* 1998-2002,
2005-2011; Executive Committee, 2005-2011; General Ichthyology Editor, *Copeia*, 1998-
2002; Raney Award Committee, 1989-90; Chair, 1990; Stoye Award Judge, 1990; Joint
Collections Resources Committee, 1991; Editorial Board, 1997-98; Ad hoc Committee on
Electronic Publishing, 1999; Ad hoc Committee on Membership, 2013-present; Robert H.
Gibbs Jr. Memorial Award Committee, 2009-11, Chair 2011.

Thomas H. Kean New Jersey State Aquarium
Research Development Committee, 1993-96.

International Symposium on Phylogeny and Classification of Neotropical Fishes,
member- central committee, July 1997, Museu de Ciências e Tecnologia- PUCRS, Porto
Alegre, Brazil.

Natural History Museum of Los Angeles County
external member of Ichthyology Search Committee, 1997-98.

National Museum of Natural History, Smithsonian Institution
member external committee for faculty tenure/promotion review, 2007, 2010.

Field Museum of Natural History
external reviewer for faculty tenure/promotion, 2013.

University of Minnesota, Department of Fisheries, Wildlife & Conservation Biology

external reviewer for faculty tenure/promotion, 2013.
University of Kansas, Department of Ecology & Evolutionary Biology and Biodiversity
Institute, external reviewer for faculty tenure/promotion, 2015.

HONORS

Panaque schaeferi (Loricariidae), described in Lujan et al. (2010), *Copeia* 2010(4):693, fig. 12-13.
Rhinolekos schaeferi (Loricariidae), described in Martins & Langeani (2011), *Neotropical Ichthyology* 9(1):74, fig. 1c, 6.

PUBLICATIONS

Invited Reviews:

53. 2010 **Schaefer, S.A.** [review of] *Gonorynchiformes and Ostariophysan Relationships: A Comprehensive Review*, by Terry Grande (senior volume editor), Francisco José Poyato-Ariza and Rui Diogo (volume co-editors), Enfield (New Hampshire): Science Publishers, x+587 p.; ill.; index, 2010. *Quart. Rev. Biol.* 85:516-517.
45. 2006 **Schaefer, S.A.** [review of] *Morphological Evolution, Aptations, Homoplasies, Constraints and Evolutionary Trends. Catfishes as a Case Study on General Phylogeny and Macroevolution*, by Rui Diogo. Enfield (New Hampshire): Science Publishers, x+491 p; ill.; index. 2005. *Quart. Rev. Biol.* 81(3):276-278.
38. 2003 **Schaefer, S.A.** [review of] *Conservation and Management of Ornamental Fish Resources of the Rio Negro Basin, Amazonia, Brazil- Project Piaba*. Ning Labbish Chao, Paulo Petry, Gregory Prang, Leonard Sonneschien, and Michael Tlusty (eds.). Editoria de Universidade do Amazonas, Manaus, Brazil. 2001. *Copeia*, 2003(3):672-675.
29. 2001 **Schaefer, S.A.** Catfishes and Relatives, pp. 488-492. In: *Animal: The Definitive Visual Guide to the World's Wildlife*, D. Burnie and D.E. Wilson (eds.), Dorling Kindersley Limited, London, 624 p.
26. 1999 **Schaefer, S.A.** [review of] *Collection Building in Ichthyology and Herpetology*, T.W. Pietsch and W.D. Anderson, Jr. (eds.), Amer. Soc. Ichthyol. Herpetol. Spec. Publ., no. 3, xiii+593 pp., 1997. *Quart. Rev. Biol.* 74(3):353-354.

Peer Reviewed:

56. 2021 Fernández, L., Arroyave, J., and **Schaefer, S.A.** Emerging patterns in phylogenetic studies of trichomycterid catfishes (Teleostei, Siluriformes) and the contribution of Andean diversity. *Zoologica Scripta*, 50:318-336. DOI 10.1111/zsc.12475.
55. 2011 **Schaefer, S.A.**, Chakrabarty, P., Geneva, A., and Sabaj Pérez, M.H. Nucleotide sequence data confirm diagnosis and local endemism of variable morphospecies of Andean astroblepid catfishes (Siluriformes: Astroblepidae). *Zoological Journal of the Linnean Society*, 162:90-102.
54. 2011 **Schaefer, S.A.** The Andes: Riding the tectonic uplift, Chapter 16, p. 259-278. In: *Historical Biogeography of Neotropical Freshwater Fishes*, J.S. Albert and R.E. Reis (eds.), University of California Press, Berkeley.
52. 2010 **Schaefer, S.A.** and J. Arroyave. Rivers as islands: determinants of the distribution of Andean astroblepid catfishes. *Journal of Fish Biology*, 77:2373-2390.
51. 2010 Aquino, A.E., and **S.A. Schaefer**. Systematics of the genus *Hypoptopoma* Günther, 1868 (Siluriformes, Loricariidae). *Bulletin of the American Museum of Natural History*, no. 336, 110 pp.

50. 2009 **Schaefer, S.A.** Family Loricariidae, Subfamily Hypoptopomatinae. p. 38-39. In: *Checklist of the Freshwater Fishes of the Guiana Shield*, R.P. Vari, C.J. Ferraris, Jr., A. Radosavljevic, V.A. Funk (eds.), *Bulletin of the Biological Society of Washington*, no. 17.
49. 2009 **Schaefer, S.A.**, and L. Fernández. Redescription of the Pez Graso, *Rhizosomichthys totae* (Trichomycteridae), of Lago de Tota, Colombia, and aspects of cranial osteology revealed by microtomography. *Copeia*, 2009(3):513-525.
48. 2009 Fernández, L., and **S.A. Schaefer**. Relationships among the Neotropical Candirus (Trichomycteridae, Siluriformes) and the evolution of parasitism based on analysis of mitochondrial and nuclear gene sequences. *Molecular Phylogenetics and Evolution*, 52(2):416-423.
47. 2008 **Schaefer, S.A.**, and F. Provenzano. The Lithogeninae (Siluriformes, Loricariidae): Anatomy, interrelationships, and description of a new species. *American Museum Novitates*, 3637:1-49.
46. 2007 Fernandez, L., L. J. Saucedo, F. M. Carvajal-Vallejos, and **S. A. Schaefer**. A new phreatic catfish of the genus *Phreatobius* Goeldi 1905 from groundwaters of the Iténez River, Bolivia (Siluriformes, Heptapteridae). *Zootaxa*, 1626:51-58.
44. 2007 **Schaefer, S.A.** Chapter 15. Family Alestidae, tribe Petersiini. Pp. 347-350 and 380-411. In: *The Fresh and Brackish Water Fishes of Lower Guinea, West Central Africa*, M.L.J. Stiassny, G. Teugels, C.D. Hopkins (eds.), Musée Royal de l'Afrique Central, Tervuren, and Institut de Recherche pour le Développement, Paris.
43. 2005 **Schaefer, S.A.**, Provenzano, F., de Pinna, M.C.C., and Baskin, J.N. New and noteworthy Venezuelan glanapterygine catfishes (Siluriformes, Trichomycteridae), with a discussion of their biogeography and psammophily. *American Museum Novitates*, 3496:1-27.
42. 2005 Stiassny, M.L.J., and **S.A. Schaefer**. *Rhabdalestes aeratis*, new species (Characiformes: Alestidae): first occurrence of the genus from the Middle Congo River basin. *Ichthyological Exploration of Freshwaters*, 16(3):271-278.
41. 2005 Calcagnotto, D., **S.A. Schaefer**, and R. DeSalle. Relationships among characiform fishes inferred from analysis of nuclear and mitochondrial gene sequences. *Molecular Phylogenetics and Evolution*, 36:135-153.
40. 2005 Fernández, L., and **S.A. Schaefer**. New *Trichomycterus* (Siluriformes: Trichomycteridae) from an offshore island of Colombia. *Copeia*, 2005(1):68-76.
39. 2003 Fernández, L., and **S.A. Schaefer**. *Trichomycterus yuska*, a new species from high elevations of Argentina (Siluriformes: Trichomycteridae). *Ichthyological Exploration of Freshwaters*, 14(4):353-360.
37. 2003 Provenzano, F., **S.A. Schaefer**, J.N. Baskin, and R. Royero-Leon. New, possibly extinct lithogenine loricariid (Siluriformes, Loricariidae) from northern Venezuela. *Copeia*, 2003(3):562-575.
36. 2003 **Schaefer, S.A.** Subfamily Hypoptopomatinae. Pp. 321-329. In: R.E. Reis, S.O. Kullander & C.J. Ferraris, Jr. (eds.), *Checklist of the Freshwater Fishes of South and Central America*. Porto Alegre, Brazil: Edipucrs, 627 p.
35. 2003 **Schaefer, S.A.** Family Astroblepidae. Pp. 312-317. In: R.E. Reis, S.O. Kullander & C.J. Ferraris, Jr. (eds.), *Checklist of the Freshwater Fishes of South and Central America*. Porto Alegre, Brazil: Edipucrs, 627 p.
34. 2003 **Schaefer, S.A.** Family Scoloplacidae. Pp. 310-311. In: R.E. Reis, S.O. Kullander & C.J. Ferraris, Jr. (eds.), *Checklist of the Freshwater Fishes of South and Central America*. Porto Alegre, Brazil: Edipucrs, 627 p.
33. 2003 **Schaefer, S.A.** Relationships of *Lithogenes villosus* Eigenmann, 1909 (Siluriformes: Loricariidae): Evidence from high-resolution computed microtomography. *American Museum Novitates*, 3401:1-55.

32. 2002 Aquino, A.E., and **S.A. Schaefer**. The temporal region of the cranium of loricarioid catfishes (Teleostei: Siluriformes): Morphological diversity and phylogenetic significance. *Zoologischer Anzeiger*, 241 (2002):223-244.
31. 2002 **Schaefer, S.A.**, and Buitrago-Suaréz, U.A. Odontode morphology and skin surface features of Andean astroblepid catfishes (Siluriformes, Astroblepidae). *Journal of Morphology*, 254:139-148.
30. 2002 Aquino, A.E., and **S.A. Schaefer**. Revision of *Oxyropsis* Eigenmann & Eigenmann, 1889 (Siluriformes, Loricariidae). *Copeia* 2002(2):374-390.
28. 2001 Aquino, A.E., **S.A. Schaefer**, and A.M. Miquelarena. A New Species of *Hisonotus* (Siluriformes, Loricariidae) of the Upper Río Uruguay Basin. *American Museum Novitates*, 3333:1-12.
27. 2000 **Schaefer, S.A.**, and Aquino, A.E. Postotic laterosensory canal and pterotic branch homology in catfishes. *Journal of Morphology*, 246:212-227.
25. 1998 Reis, R.E., and **S.A. Schaefer**. New cascudinhos from southern Brazil: Systematics, endemism, and relationships (Siluriformes, Loricariidae, Hypoptopomatinae). *American Museum Novitates*, 3254:1-25.
24. 1998 **Schaefer, S.A.** Conflict and resolution: Impact of new taxa on phylogenetic studies of the neotropical cascudinhos (Siluriformes: Loricariidae). Pp. 375-400. In: L. R. Malabarba, R. E. Reis, R. P. Vari, C. A. S. Lucena, and Z. M. S. Lucena (eds.), *Phylogeny and Classification of Neotropical Fishes*, Edipucrs, Porto Alegre.
23. 1998 Garavello, J.C., H.A. Britski, and **S.A. Schaefer**. Systematics of the genus *Otothyris* Myers 1927, with comments on geographic distribution (Siluriformes, Loricariidae, Hypoptopomatinae). *American Museum Novitates*, 3222:1-19.
22. 1998 **Schaefer, S.A.**, and F. Provenzano R. *Niobichthys ferrarisi*, a new genus and species of armored catfish from southern Venezuela (Siluriformes: Loricariidae). *Ichthyological Exploration of Freshwaters*, 8(3):221-230.
21. 1997 **Schaefer, S.A.** The Neotropical Cascudinhos: Systematics and biogeography of the *Otocinclus* catfishes (Siluriformes: Loricariidae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 148:1-120.
20. 1996 **Schaefer, S.A.**, and G.V. Lauder. Testing historical hypotheses of morphological change: biomechanical decoupling in loricarioid catfishes. *Evolution*, 50(4):1661-1675.
19. 1996 **Schaefer, S.A.** *Nannoptopoma*, A new genus of loricariid catfishes (Siluriformes: Loricariidae) from the Amazon and Orinoco River basins. *Copeia*, 1996(4):913-926.
18. 1996 **Schaefer, S.A.** Type designations for some Steindachner loricariid material in the Natural History Museum, Vienna. *Copeia*, 1996(4):1031-1035.
17. 1993 **Schaefer, S.A.**, and D.J. Stewart. Systematics of the *Panaque dentex* species group (Siluriformes: Loricariidae), wood-eating armored catfishes from tropical South America. *Ichthyological Exploration of Freshwaters*, 4(4):309-342.
16. 1993 Reis, R.E., and **S.A. Schaefer**. *Eurycheilichthys* nom. nov., a substitute name for *Eurycheilus* Reis & Schaefer, 1992 (Siluroidei: Loricariidae). *Copeia*, 1993(3): 894.
15. 1993 **Schaefer, S.A.**, and F. Provenzano R. The Guyana Shield *Parotocinclus*: systematics, biogeography, and description of a new Venezuelan species (Siluroidei: Loricariidae). *Ichthyological Exploration of Freshwaters*, 4(1):39-56.
14. 1993 **Schaefer, S.A.** A remarkable occurrence of isopod parasitism on an armoured catfish, *Microlepidogaster maculipinnis*. *Journal of Fish Biology*, 43:307-310.

13. 1992 Reis, R.E., and **S.A. Schaefer**. *Eurycheilus pantherinus* (Siluroidei: Loricariidae), a new genus and species of Hypoptopomatinae from southern Brazil. *Copeia*, 1992:215-223.
12. 1991 **Schaefer, S.A.** Phylogenetic analysis of the loricariid subfamily Hypoptopomatinae (Pisces: Siluroidei: Loricariidae), with comments on generic diagnoses and geographic distribution. *Zoological Journal of the Linnean Society*, 102:1-41.
11. 1991 **Schaefer, S.A.** Morphometric investigations in cyprinid biology. Chapter 3, pp. 55-82, In: J.S. Nelson and I. J. Winfield (eds.), *Cyprinid Fishes. Systematics, Biology, and Exploitation*, Chapman and Hall, London.
10. 1990 **Schaefer, S.A.** Anatomy and relationships of the scoloplacid catfishes. *Proceedings of the Academy of Natural Sciences of Philadelphia*,:167-210.
9. 1989 **Schaefer, S.A.**, S.H. Weitzman, and H.A. Britski. Review of the neotropical catfish genus *Scoloplax* (Loricarioidea: Scoloplacidae), with comments on reductive characters and phylogenetic analysis. *Proceedings of the Academy of Natural Sciences of Philadelphia*, 141:181-211.
8. 1988 **Schaefer, S.A.** Homology and evolution of the opercular series in the loricarioid catfishes (Pisces: Siluroidei). *Journal of Zoology*, 214:81-93.
7. 1988 **Schaefer, S.A.** A new species of the loricariid genus *Parotocinclus* from southern Venezuela (Pisces: Siluroidei). *Copeia*, 1988:182-188.
6. 1987 **Schaefer, S.A.** Osteology of *Hypostomus plecostomus* (Linnaeus), with a phylogenetic analysis of the loricariid subfamilies (Pisces: Siluroidei). *Contributions in Science, Natural History Museum of Los Angeles County*, no. 394, 31 pp.
5. 1986 **Schaefer, S.A.**, and G.V. Lauder. Historical transformation of functional design: Evolutionary morphology of feeding mechanisms in loricarioid catfishes. *Systematic Zoology*, 35:489-508.
4. 1986 **Schaefer, S.A.**, and T.M. Cavender. Geographic variation and subspecific status of *Notropis spilopterus* (Pisces: Cyprinidae). *Copeia* 1986:122-130.
3. 1986 **Schaefer, S.A.**, R.K. Johnson, and J. Badcock. Family No. 73: Photichthyidae, pp. 243-247. In: *Smith's Sea Fishes*, M.M. Smith and P.C. Heemstra (eds.), Macmillan South Africa.
2. 1986 **Schaefer, S.A.**, R.K. Johnson, and J. Badcock. Family No. 74: Gonostomatidae, pp. 247-253. In: *Smith's Sea Fishes*, M.M. Smith and P.C. Heemstra (eds.), Macmillan South Africa.
1. 1984 **Schaefer, S.A.** Mechanical strength of the pectoral spine/girdle complex in *Pterygoplichthys* (Siluroidei: Loricariidae). *Copeia*, 1984:1005-1008.

INVITED SYMPOSIA

- 2020 Workshop: Integrating Institutional Archives with Disciplinary Web Repositories, iDigBio, MorphoSource, oVert organizers, Duke University, Durham, NC, January 23-24, 2020.
- 2019 Natural Science Collections Alliance, Collections Policy and Advocacy Meeting, Washington, DC, April 2-3, 2019. Presentation: "One World Collection: an overview and underview".
- 2018 Global Summit of Research Museums—The Transformative Potential of Research, Museum für Naturkunde, Berlin, Germany, November 4-6, 2018.
- 2017 Director's Summit on Digital Data, Society for the Preservation of Natural History Collections, Denver CO, June 19, 2017. Presentation: "Panel: Perspectives of the three largest American natural history museums on the challenge of digitization", with K. Johnson and R. Lariviere.

- 2015 Donn Rosen and the Assumptions that Inhibit Scientific Progress in Comparative Biology, American Society of Ichthyologists and Herpetologists, Reno NV, July 15-19, 2015. Presentation: "Uncertainty and Decision in Revisionary Systematics".
- 2009 All Catfishes: Six Years of Exploration and Discovery, American Society of Ichthyologists and Herpetologists, Portland OR, July 22-27, 2009. Presentation: "Andean astroblepid catfishes: Pattern and scale of species diversity", P. Chakrabarty, M. Sabaj, A. Geneva co-authors.
- 2003 William A. Gosline Memorial Symposium on Neotropical Fishes, Neotropical Ichthyological Association and the American Society of Ichthyologists & Herpetologists, Manaus, Brazil, June 26 - July 1, 2003. Presentation: "Review of the Lithogeninae Gosline, 1947 (Siluriformes, Loricariidae): distribution, morphology, and relationships".
- 1997 International Symposium on Phylogeny and Classification of Neotropical Fishes, Museu de Ciencias e Tecnologia, PUCRS, Porto Alegre, Brazil, July 1997. Presentation: "The Neotropical Cascudinhos: New Taxa, Characters and Relationships".

INVITED LECTURES

- 2015 Texas Tech University
2014 University of Nebraska, Lincoln
2014 National Museum of New Zealand, Te Papa Tongarewa
1998 Columbia University
1997 Queens College, CUNY
1997 Fordham University
1995 American Museum of Natural History
1994 University of Colorado, Boulder
1991 Field Museum of Natural History

PUBLISHED ABSTRACTS AND CONTRIBUTED PRESENTATIONS

- 2007 Schaefer, S.A. Systematics of the Astroblepidae (Siluriformes): Overview and Status of a Taxonomic Revision of the Family. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, St. Louis, MO.
- 2007 Provenzano, F., Schaefer, S.A. Systematics of the Astroblepidae (Siluriformes): Diversity and Distributions in the Northern Region of Panama, Colombia, and Venezuela. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, St. Louis, MO.
- 2007 R. Barriga, D. Stewart, Schaefer, S.A. Systematics of the Astroblepidae (Siluriformes): Diversity and Distributions in the Southern Region of Ecuador, Peru, and Bolivia. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, St. Louis, MO.
- 2006 Schaefer, S.A. Overview of the Lithogeninae and a new species from southern Venezuela. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, New Orleans, LA.
- 2005 Adriaens, D., T. Geerinckx, F. Huysentruyt, S.A. Schaefer & A. Herrel. Evolution of trophic specializations in neotropical catfishes: more than a mouthful. Oral contribution, annual meeting, Society of Integrative and Comparative Biology, Orlando.
- 2005 Schaefer, S.A. Perspectives on the Systematics of African Alestidae. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Tampa, FL.
- 2004 J.N. Baskin, M. de Pinna, F. Provenzano, S. Schaefer, Anatomical features of neotropical Glanapterygine catfishes from the interstitial sand environment of the Amazon-Orinoco system. Oral presentation, International Congress of Vertebrate Morphology, Boca Raton; *J. Morphol.* 260(3):276.

- 2003 Schaefer, S.A. Review of the Lithogeninae Gosline, 1947 (Siluriformes, Loricariidae): distribution, morphology, and relationships. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Manaus, Brazil.
- 2003 J.N. Baskin, M. de Pinna, F. Provenzano, S. Schaefer, A possible extensive co-occurring distribution of two genera of tiny trichomycterid catfishes in Neotropical river bottom sand. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Manaus, Brazil.
- 2003 D. Calcagnotto, S. Schaefer, R. Desalle, African and Neotropical Characiformes: phylogeny and biogeography. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Manaus, Brazil.
- 2002 Schaefer, S.A. *Lithogenes villosus* is not an astroblepid. Evidence from high-resolution computed microtomography. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Kansas City.
- 2001 Schaefer, S.A. Structural diversity of the temporal region of catfishes: Phylogenetic and functional implications. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Penn State University.
- 1998 Schaefer, S.A. Geometric morphometrics as cladistic characters: Evaluation using armored catfishes. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Guelph.
- 1996 Schaefer, S.A. The Neotropical Cascudinhos: Systematics and biogeography of *Otocinclus*. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Southern California.
- 1994 Schaefer, S.A. and G.V. Lauder. Testing historical hypotheses of morphological change. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Southern California.
- 1993 Schaefer, S.A. and F. Provenzano. The Guyana Shield *Parotocinclus*. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Texas, Austin.
- 1990 Schaefer, S.A. Monophyly and areas of endemism in *Otocinclus*. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, College of Charleston.
- 1989 Schaefer, S.A. , S.H., Weitzman, and H.A. Britski. Reductive characters, phylogenetic analysis, and *Scoloplax* systematics. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, San Francisco State University.
- 1988 Schaefer, S.A. and S.H. Weitzman. *Scoloplax* relationships and loricarioid phylogeny. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Michigan.
- 1987 Schaefer, S.A. Phylogenetic relationships among loricariid subfamilies (Siluroidei). Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, New York State Museum.
- 1987 Schaefer, S.A. Covariation between fluctuating asymmetry and shape variability in natural populations of the loricariid fish *Otocinclus maculipinnis*. Oral presentation, annual meeting of the Southern California Academy of Sciences, Los Angeles.
- 1986 Schaefer, S.A. Phylogenetic interrelationships of loricariid catfishes. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Victoria, BC.
- 1985 Schaefer, S.A. Comments on the osteology and relationships among genera of loricariid catfishes. Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, University of Tennessee.
- 1983 Schaefer, S.A. Mechanical strength of the pectoral spine/girdle complex in *Pterygoplichthys* (Siluroidei: Loricariidae). Oral presentation, annual meeting of American Society of Ichthyologists and Herpetologists, Florida State University.
- 1982 Schaefer, S.A. and J.M. Dean. Short-term temporal variability in the abundance and species composition of estuarine larval and juvenile fishes. Oral presentation, annual

meeting of American Society of Ichthyologists and Herpetologists, Northern Illinois University.

FIELD WORK

Descriptions, localities, and specimen collections data available online at:
<http://www.amnh.org/our-research/vertebrate-zoology/ichthyology/research-activities/scott-schaefer-s-research>

Location/Expedition	Drainage Basins	Field Numbers (# stations)	Approx. # specimens	Grant Sponsor(s)
Bolivia				
1998 Parque Nacional Noel Kempff Mercado	Itenéz/Mamoré/Amazon	SAS98-1:19 (19)	5600	AMNH CBC
Brazil				
1993 ANSP/MCP	São Francisco	SAS93-1:37 (45)	7000	NSF
1995 ANSP/MCP	Atlantic coast	SAS95-1:46 (71)	12,000	NSF
Ecuador				
2005 AMNH/MEPN	Andean slopes of Napo, Pastaza, Santiago, Zamora, Catamayo, Jubonés, Cañar	SAS05-1:36 (36)	560	NSF
Peru				
2004 AMNH/MUSM	Andean altiplano of Apurimac and Urubamba	SAS04-1:14 (14)	200	NSF
2013 AMNH/MUSM	Andean Pacific and Amazon slopes of Chira, Chinchipe, Huancabamba, Marañón	SAS13-1:17 (17)	600	Niarcos Foundation
Venezuela				
1989 ANSP/MBUCV	Orinoco	SAS89-1:19 (19)	3000	Eppley Foundation
1991 ANSP/MBUCV	Cuyuní/Essequibo	SAS91-1:19 (19)	4000	Eppley Foundation
1999 AMNH/MBUCV	Cuao/Sipapo/Orinoco	SAS99-1:14 (14)	2500	AMNH
2001 AMNH/MBUCV	Cuao	SAS01-1:12 (12)	4000	Niarcos Foundation
2006 AMNH/MBUCV	Maracaibo and Orinoco slope drainages of the Merida Andes	SAS06-1:16 (16)	300	NSF

REVIEWER OF RESEARCH PROPOSALS FOR:

National Science Foundation

Division of Environmental Biology
Systematic and Population Biology
International Programs
International Research Fellowship Program
Long-term Projects in Environmental Biology
Ecological and Evolutionary Physiology
Division of Instrumentation and Resources

Smithsonian Institution

Scholarly Studies Program

American Philosophical Society

Swiss National Science Foundation

Division of Biology & Medicine

REVIEWER OF MANUSCRIPTS FOR:

Copeia

Zootaxa

Cladistics

Evolution

Fieldiana Zoology

Systematic Biology

Journal of Zoology

Journal of Morphology

Journal of Fish Biology

Journal of Paleontology

Neotropical Ichthyology

Saunders College Publishing

Systematics and Biodiversity

Canadian Journal of Zoology

Journal of Vertebrate Paleontology

Smithsonian Contributions to Zoology

Molecular Phylogenetics and Evolution

Zoological Journal of the Linnean Society

Ichthyological Exploration of Freshwaters

Transactions of the American Fisheries Society

Proceedings of the Academy of Natural Sciences

Proceedings of the California Academy of Sciences

Proceedings of the Biological Society of Washington

Proceedings of the Royal Society B Biological Sciences

Revista Physis, Asociacion Argentina de Ciencias Naturales

Journal of Zoological Systematics and Evolutionary Research

Occasional Papers of the Museum of Zoology, Univ. of Michigan

Annales Sciences Zoologique, Musée Royal de l'Afrique Centrale

Occasional Papers of the Museum of Natural History, Univ. of Kansas

Comunicações do Museu de Ciências e Tecnologia da PUCRS, Série Zoologia