

Mark Henry Sabaj, PhD
Interim Curator, Ichthyology



Education:

- BS, Biology, University of Richmond, Va., 1990
- MS, Biology, University of Richmond, Va., 1992
- PhD, Animal Biology, University of Illinois, Urbana-Champaign, 2002

Research Interests:

- Catfish family Doradidae (thorny catfishes)
- Diversity and evolution of South American freshwater fishes

Bio:

Mark Henry Sabaj began his career in ichthyology as an undergraduate in 1989 when Drs. William S. Woolcott and Eugene G. Maurakis invited him to assist their field investigation and video documentation of spawning behaviors in nest-building chubs and dace in the streams of eastern North America. His masters' thesis documented newly observed reproductive strategies in five species of minnows in the genera *Exoglossum*, *Nocomis*, *Rhinichthys* and *Semotilus*. In 1992 he became a doctoral student of Lawrence M. Page, and from 1995-2000 served as full-time collection manager of fishes at the Illinois Natural History Survey.

In 2001 he relocated to Philadelphia to become collection manager of fishes at the Academy of Natural Sciences. Between 1991 and 2018, he published 58 peer-reviewed papers on topics that include spawning behaviors in minnows, darters and loricariids, and taxonomic descriptions of 33 new taxa including catfishes in the families Doradidae (16 species, 1 genus), Loricariidae (8 species), Akysidae (1 species) and Aspredinidae (1 species) as well as a river ray (*Potamotrygon*), threadfin (*Polynemus*, subspecies), dwarf cichlid (*Apistogramma*), two crayfish species (*Orconectes*) and a freshwater sponge (*Drulia*).

Sabaj has field and collecting experience in freshwater ecosystems throughout the U.S. and on four continents including 40 expeditions to Argentina, Bolivia, Brazil, Canada, Colombia, Finland, Guyana, Mongolia, Peru, Suriname, Thailand, Uruguay, and Venezuela. His 1998 expedition to Kaitetur Falls, Guyana, was featured in a 2002 article in *National Geographic* entitled "Catfish Hunters," and his most recent work in Mongolia was filmed for a documentary on the geology of the Hangay Plateau.

He was a co-principal investigator on the [All Catfish Species Inventory](#), a global project funded by the National Science Foundation to discover and classify all species of catfishes. In 2013, NSF funded his latest collaborative project entitled: Baseline Survey of the Lower Xingu River Rapids, Brazil: a Highly Diverse, Globally Unique, and Immediately Imperiled Ecosystem. Sabaj

also appears in three episodes of the 2017 Netflix series “72 Dangerous Animals: Latin America.”

His specific area of taxonomic expertise is the catfish family Doradidae (thorny catfishes).

Selected Publications:

2018 — Fitzgerald, D.B., **M.H. Sabaj**, L.M. Sousa, A.P. Gonçalves, L. Rapp Py-Daniel, N.K. Lujan, J. Zuanon, K.O. Winemiller & J.G. Lundberg. Diversity and community structure of rapids-dwelling fishes of the Xingu River: Implications for conservation amid large-scale hydroelectric development. *Biological Conservation* 222: 104-112.

2016 — Winemiller, K.O., P. McIntyre, L. Castello, E. Fluet-Chouinard, T. Giarrizzo, S. Nam, I.G. Baird, W. Darwall, N.K. Lujan, I. Harrison, M.L.J. Stiassny, R.A.M. Silvano, D.B. Fitzgerald, F.M. Pelicice, A.A. Agostinho, L.C. Gomes, J.S. Albert, E. Baran, M. Petrere, Jr., C. Zarfl, M. Mulligan, J.P. Sullivan, C. Arantes, L.M. Sousa, A.A. Koning, D.J. Hoeinghaus, **M. Sabaj**, J.G. Lundberg, J. Armbruster, M.L. Thieme, P. Petry, J. Zuanon, G. Torrente Vilara, J. Snoeks, C. Ou, W. Rainboth, C.S. Pavanelli, A. Akama, A. van Soesberge & L. Sáenz. Hydropower expansion in the Amazon, Congo and Mekong – a looming threat to global biodiversity. *Science* 351 (6269): 128–129.

2015 — **Sabaj, M.H.** Where the Xingu Bends and Will Soon Break. *American Scientist*, 103(6): 395–403.

2008 — Abell, R., M.L. Thieme, C. Revenga, M. Bryer, M. Kottelat, N. Bogutskaya, B. Coad, N. Mandrak, S. Contreras Balderas, W. Bussing, M.L.J. Stiassny, P. Skelton, G.R. Allen, P. Unmack, A. Naseka, R. Ng, N. Sindorf, J. Robertson, E. Armijo, J.V. Higgins, T.J. Heibel, E. Wikramanayake, D. Olson, H.L. Lopez, R.E. Reis, J.G. Lundberg, **M.H. Sabaj**, and P. Petry. Freshwater ecoregions of the world: a new map of biogeographic units for freshwater biodiversity conservation. *BioScience* 58(5):403–414.