

BOOK REVIEWS

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Ichthyopedia: A Biographical Dictionary of Ichthyologists.

Theodore W. Pietsch and William D. Anderson, Jr. 2023 (but copyrighted 2022). American Philosophical Society. ISBN 9781606189252. xiv + 303 p. \$65 (hardcover).—In addition to their many contributions to systematic ichthyology, Theodore W. Pietsch and William D. Anderson, Jr., have also been superb biological historians, publishing notable works on Renard (Pietsch, 1995), Arledi (Pietsch and Aili, 2022), Holbrook (Anderson and Stephens, 2002; Anderson, 2014), two annotated English editions of Cuvier's *Historical Portrait of the Progress of Ichthyology* (Cuvier, 1995, 2020), and, together, a multi-authored volume on collection building (Pietsch and Anderson, 1997). Now they have collaborated to write *Ichthyopedia: A Biographical Dictionary of Ichthyologists*, with 1,417 (I counted) brief biographical sketches (promotional materials say “about 1,500”) of people who have contributed to ichthyology in one way or another, including scientists, explorers, collectors, amateur naturalists, aquarists, illustrators, anglers, conservationists, philanthropists, and Ancient Greek philosophers and poets. Even a librarian gets an entry (Alice Newman Hays, who compiled a bibliography of David Starr Jordan), as did Sigmund Freud, who published notes on eels and lampreys while a medical student. Coverage spans 2,344 years, from Aristotle (d. 322 BCE) to Carter R. Gilbert (d. 6 January 2022). Only deceased people are included.

A typical account follows this format: Name. Birth and death years. Occupation(s). Education. Professional or academic history. Select publications. Exact date (when known) and cause of death (when known). Source(s). Illustrating 254 of the accounts (17.9%) are small black-and-white portraits. Twenty-two of these portraits—evenly divided between men and women—grace the attractive front cover.

The accounts vary in length, “not necessarily reflecting the importance of the individual but frequently the availability of information” (p. xiv). The longest is for William Gosline (40 lines). At just three lines, the shortest belongs to Emanuel König: “A Swiss naturalist who published brief anatomical descriptions of a mullet in 1687 and an anglerfish in 1695.” (That’s the complete entry, just 18 words). König’s entry could have been more informative, though. Pietsch and Anderson cite Wikipedia frequently throughout the book, 43% of the time by my count (610 entries, including a total of six citations among Wikidata, Wikisource, and Wikispecies). “We have used Wikipedia on many occasions,” they write in the introduction, “and have found it to be a reliable source” (p. xiii). Had they consulted König’s Wikipedia entry, they could have fleshed out their own, providing some context as to why König was interested in mullets and anglerfishes in the first place. They would also have learned that König advocated drinking one’s own urine to heal heartburn, depression, gout, toothaches, colic,

jaundice, and high fevers. That’s a fun detail worth including, is it not?

Entries typically explain the subject’s importance to ichthyology. A few, however, do not. The naval adventures of pirate and explorer William Dampier (1651–1715) are given a lengthy summary, but fishes are not mentioned. So why is he included in the book? I looked him up online and learned that he was the first European to conduct a detailed scientific study of Australia’s terrain, seas, and biology. Still, the connection to fishes remains unclear. Similarly, Charles Lucien Bonaparte (1803–1857) is said to have written “extensively” (p. 20) on American and European birds, but his extensive contributions to fish taxonomy—he is the author of nearly 100 family-, genus- and species-level names still in use today—are overlooked entirely.

While most of the entries do a serviceable job of summarizing their subjects’ contributions to ichthyology, they sometimes leave out important or at least interesting information. Sarah Bowdich’s (1791–1856) *Excursions in Madeira and Porto Santo* (1825) is mentioned in her entry, but the fact that it contains the first scientific descriptions of fishes written by a woman (Scharpf, 2020) is not. Missing from the account of Edward Bancroft (1744–1821) is his discovery that *Malapterurus* and *Torpedo* discharge electricity to stun their prey rather than generate it passively (Finger and Piccolino, 2011). (Fun fact worth including: Bancroft was also a double-agent spy during the American Revolutionary War.) D’Arcy Wentworth Thompson (1860–1948) is lauded for his 1917 book *On Growth and Form*, but his *Glossary of Greek Fishes* (1945), an essential reference for any ichthyological historian, is not mentioned. And any summary of the career of William Blandowski (1822–1878) is incomplete without including this amazing-but-true story: his descriptions of eight new fish species from the Lower Murray River of Australia were deemed so offensive to his colleagues that the pages they were printed on were literally pulled from the journal’s binding before it was released (Humphries, 2003).

Blandowski’s entry is also an example of how *Ichthyopedia* tends to shy away from saying anything negative or controversial about its subjects. The entry for Hans Sloane (1860–1753), for example, mentions the 71,000 natural-history items he bequeathed to England, forming the foundation of the British Museum, but fails to mention the brutal treatment of the plantation slaves who collected some of them, and the fact that he was a slaveholder himself (Delbourgo, 2017). The name change of *Copeia* is mentioned in the bio of Edward Drinker Cope (1840–1897) but not the reason why. David Starr Jordan’s (1851–1931) support of eugenics and compulsory sterilization, and his potential involvement in the coverup of the strychnine poisoning of Jane Stanford (Cutler, 2003), get nary a mention. Nor do the anti-Black polemics of Robert Wilson Shufeldt (1850–1934), which have found a new audience online among racists and white

supremacists (Cook, 2012). There are exceptions, however. Ernst Haeckel (1834–1919) is called an “avid promoter of scientific racism,” (p. 74), and Henry Fairfield Osborn (1857–1935) is said to have been “strongly criticized for his views on race and eugenics” (p. 132). So why not treat Sloane, Cope, Jordan, Shufeldt, and others the same way? Selectively excluding uncomfortable truths about the ichthyologists we admire seems a disservice to both history and biography. This is especially true today, when the Jordan Hall name is removed from Stanford University, *Copeia* is renamed, and taxonomists continue to debate the ethical appropriateness of biological nomina named after people associated with colonialism, imperialism, racism, and other social ills (e.g., Tracy, 2022; Ceríaco et al., 2023; Guedes et al., 2023; Pethiyagoda, 2023).

Pietsch and Anderson “acknowledge that the list [of included ichthyologists] is woefully incomplete, but we’ve done our best to include those who have made the most significant contributions” (p. xiv). Perhaps the most obscure entry is that of Samuel Tull (1706–1792), who published a note on fish castration in 1745. Some of the people who are missing from the book but warrant inclusion include: George C. Becker (1917–2002), American ichthyologist and author of the classic *Fishes of Wisconsin* (1983); C. Jeff Cederholm (1943–2006), American fisheries biologist who conducted landmark research into how anadromous salmonids transport marine nutrients from marine to freshwater and terrestrial ecosystems; Salvador Contreras-Balderas (1936–2009), Mexican ichthyologist who specialized in Mexican freshwater fishes; James E. Deacon (1934–2015), American ichthyologist and desert-fish conservationist; Luc De Vos (1957–2003), Belgian Curator of Fishes at the Nairobi Museum, Kenya; Irenäus Eibl-Eibesfeldt (1928–2018), Austrian ethologist who dabbled in ichthyology, including an early use of remote cinematography to study marine life; John D. Haseman (1882–1969), prolific field collector for Carl Eigenmann and for the Carnegie Museum of Natural History, and for whom 15 Neotropical fishes are named; Thomas Derrick Iles (1927–2017), British fisheries biologist and ichthyologist, who studied Lake Malawi cichlids and herring fisheries of the North Sea and Bay of Fundy; Boris Sergeevich Iljin (1889–1958), Russian ichthyologist who specialized in gobioid fishes of the Azov, Black, and Caspian Sea basins; William T. Innes (1874–1969), American aquarist, writer, and fish-photography pioneer (Muka, 2023); Francisco Mago-Leccia (1931–2004), Venezuelan ichthyologist who specialized in gymnotiform fishes; Han Nijssen (1935–2013), Dutch ichthyologist who specialized in callichthyid catfishes; Yurii Efimovich Permitin (1925–2013), Russian ichthyologist who specialized in Antarctic fishes; Alex Ploeg (1956–2014), Dutch ichthyologist who was killed when Malaysian Airlines flight MH17 was hit by a missile over Ukraine; Jørgen J. Scheel (1916–1989), Danish aquarist and ichthyologist who specialized in African killifishes; Lothar Seegers (1947–2018), German ichthyologist, aquarist, and photographer who specialized in the fishes of East Africa and killifishes from the Amazon basin of Peru; Günther Sterba (1922–2021), Czech-born aquarist and author of the classic aquarium reference *Süsswasserfische aus aller Welt* (1959); Guy G. Teugels (1954–2003), Belgian Curator of Fishes, Musée Royale de l’Afrique Centrale; Haroldo Pereira Travassos (1922–1977), Brazilian physician-ichthyologist who specialized in *Characidium* and other Neotropical characiform fishes; and Denys W. Tucker (1921–2009), British ichthyologist who

believed the Loch Ness Monster was real. Also worth noting is that while Humphry Davy, known as the “father of modern fly-fishing,” is included, Izaak Walton (fl. 1593–1683), author of *The Compleat Angler*, is not.

Errors are few. I noticed only three: The aforementioned Edward Bancroft is said to have mentioned “Electric Catfish” in his 1769 *Essay on the Natural History of Guiana, in South America*; the fish he studied was the Electric Eel. Wilbur Follett is called “William” in the entry for Lillian Dempster (p. 44, but is correctly named in his own entry, p. 56). And in the entry for Robert Harrington (p. 76), *Rivulus marmoratus* is said to be a “junior synonym” of *Kryptolebias marmoratus* when, in fact, the latter represents the species’ current generic placement.

Is *Ichthyopedia* worth the \$65 price tag? That depends on how much money you have and your personal research interests. Since much of the book’s information is freely available on Wikipedia and other online sources, you may want to save the money and hope your library gets a copy. But if you’re an ichthyobibliophile like me, whose work lies at the intersection of taxonomy, biography, and history, then *Ichthyopedia*, despite its many omissions and oversights, is a welcome reference. I shelved my copy next to Nelson’s *Fishes of the World* and Brown’s *Composition of Scientific Words*, two reference works I consult nearly every day.

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