

BIOGRAPHICAL INFORMATION



Harry L. Fierstine, Ph.D.
Associate Dean Emeritus
College of Science and Mathematics
and
Professor Emeritus
Biological Sciences Department
California Polytechnic State University
San Luis Obispo, CA 93407

Education:

Long Beach City College (1949-1952).
Geology major, U.C.L.A. (1952-1953).
U.S. Army (1953-1955).
B.S. Biological Sciences, California State University, Long Beach (1957).
M.A. Ichthyology, U.C.L.A. (1961).
Ph.D. Zoology, U.C.L.A. (1965).

Employment:

Student Assistant in Vertebrate Paleontology, Natural History Museum of Los Angeles County (1956-1959).
Summer Assistant, California Department of Fish and Game (1962).
Teaching Assistant in Zoology Department, U.C.L.A. (1958-1962).
Assistant Professor, Biology, California State University, Long Beach (1964-1966).
Professor, Biological Sciences, Cal Poly (1966-1994).
Associate Dean, College of Science and Mathematics, California Polytechnic State University, San Luis Obispo, 1983-94 (duties included academic probation/disqualification and other student affairs including minority outreach and health professions advising).
Interim Dean, College of Science and Mathematics, Cal Poly, 1989-90 (administration of 1,500 students, 150 faculty and 40 staff).
Retired, June 15, 1994.

Courses Taught:

Comparative Anatomy, Evolution, Functional Vertebrate Morphology, General Biology, General Zoology, Human Anatomy, Human Muscle Anatomy, and Ichthyology.

Academic Awards:

Distinguished Teaching Award, Cal Poly (1977).
Cal Poly's nominee for Outstanding Professor Award, California State University System (1977 and again in 1978).
Outstanding Faculty Award for Student Academic Services, Cal Poly (1986).

Research Activities:

Interest: vertebrate paleontology (local fossils and paleoichthyology, especially billfishes) and vertebrate anatomy.
Special affiliation: Research Associate in vertebrate paleontology, Natural History Museum of Los Angeles County (1968-present).
Publications: 29 in paleontology, 5 in vertebrate anatomy, 7 in ichthyology, and 1 in ornithology.

Scientific Collecting Trips, Major Study Trips, and Research Leaves:

Collecting vertebrate fossils in Permian deposits of Arizona, New Mexico, and Utah (1959).
Tuna research cruise-San Diego, CA to Costa Rica and return (1963).
Sabbatical leave to study fish fossils in the Natural History Museums of Brussels, London, Paris, and Verona (1975).
Collection of marlin fossil and geological exploration in Northern Luzon, Philippines (1980).
Scientist at Hawaiian International Billfish Tournament, Kona, HI (1981, 1983, 1985, 1988).
Sabbatical leave to study fish fossils at Smithsonian Institution and British Museum (1993).
Scientist at Bacardi Rum Billfish Tournament, Bimini, Bahamas (1994).
Scientist at Bisbee Black and Blue Marlin Tournament, Cabo San Lucas, Baja California Sur, Mexico (1995).
Museum study trips during 1995: New York City and Washington (DC); during 2000: London, Paris, Pittsburgh, Verona, Vienna, and Washington (DC); during 2001: Charleston; during 2002: Munich and Paris.

Membership in Scholarly Societies:

American Association for the Advancement of Science
American Society of Ichthyologists and Herpetologists
Society of Vertebrate Paleontology.
Southern California Academy of Sciences

Research Grants:

Society of Sigma Xi for "Fish Studies in Morro Bay, California" (1968).
National Geographic Society for "Collection of fossil marlin and geological exploration in Northern Luzon, Philippines" (1980).

Community Service:

Air Pollution Control Hearing Board of San Luis Obispo County (1973-2003); chairman (1991-2003).
Central Coast Biological Society, founding member and member of Steering Committee (1986-present).
Mardi Gras Parade and Ball, Awards chair (1982-86).

Publications:

- Fierstine, H. L., and R. G. Werner. 1963. A new northern record of the stargazer. California Department Fish and Game 49(1):50-52.
- Walters, V., and H. L. Fierstine. 1964. Measurements of swimming speeds of yellowfin tuna and wahoo. Nature 202(4928):208-209.
- Buchanan, O. M., and H. L. Fierstine. 1964. Another record of the black swift off Mexico. Condor 66(2):161-162.
- Fierstine, H. L., and S. P. Applegate. 1968. Billfish remains from southern California with remarks on the importance of the predentary bone. Bulletin of the Southern California Academy of Sciences 67(1):29-39.
- Fierstine, H. L. 1968. Swollen dorsal fin elements in living and fossil *Caranx* (Teleostei: Carangidae). Los Angeles County Museum Contributions in Science (137):1-10.
- Fierstine, H. L., and V. Walters. 1968. Studies in locomotion and anatomy of scombroid fishes. Memoirs of the Southern California Academy of Sciences 6:1-31.
- Fierstine, H. L., K. Kline, and G. Garman. 1973. Fishes collected in Morro Bay, California, between January, 1968, and December, 1970. California Department Fish and Game 59(1):73-88.
- Fierstine, H. L., and S. P. Applegate. 1974. *Xiphiorhynchus kimblalocki*, a new billfish from the Eocene of Mississippi with remarks on the systematics of xiphioid fishes. Bulletin of the Southern California Academy of Sciences 73(1):14-22.
- Fierstine, H. L. 1974. The paleontology of billfish-the state of the art, pp. 34-44 in R. S. Shomura and F. Williams (eds.), Proceedings of the International Billfish Symposium, Kailua-Kona, Hawaii, 9-12 August 1972. Part 2. Review and contributed papers. NOAA Technical Report NMFS SSRF-675.
- Fierstine, H. L., M. A. Amerine, and K. L. Bek. 1974. Anatomical specimens from preserved animal discards. The American Biology Teacher 36(8):501-502.
- Fierstine, H. L. 1978. A new marlin, *Makaira panamensis*, from the Late Miocene of Panama. Copeia 1978(1):1-11.
- Fierstine, H. L. 1982. The curse of the fossil marlin. Terra 20(4):16-21.

- Fierstine, H. L., and B. J. Welton. 1983. A black marlin, *Makaira indica*, from the early Pleistocene of the Philippines and the zoogeography of xiphioid fishes. *Bulletin of Marine Science* 33(3):718-728.
- Fierstine, H. L., and B. J. Welton. 1988. A Late Miocene marlin, *Makaira* sp. (Perciformes, Osteichthyes) from San Diego County, California, U.S.A. *Tertiary Research* 10(1):13-19.
- Fierstine, H. L. 1990. A paleontological review of three billfish families (Istiophoridae, Xiphiidae, and Xiphiorhynchidae), pp. 11-19 in R. H. Stroud (ed.), *Planning the future of billfishes. Part 2. Contributed papers. Proceedings of the Second International Billfish Symposium, Kailua-Kona, Hawaii, August 1-5, 1988.*
- Fierstine, H. L. 1991. Review of P. S. Davie, 1990. *Pacific Marlins: Anatomy and Physiology*, Massey University, Palmerston North, New Zealand, 88p. *Copeia* 1991(4):1160-1161.
- Jefferson, G. T., H. L. Fierstine, J. R. Wesling, and T-L. Ku. 1992. Pleistocene terrestrial vertebrates from near Point San Luis, and other localities in San Luis Obispo County, California. *Bulletin of the Southern California Academy of Sciences* 91(1):26-38.
- Frazier, J. G., H. L. Fierstine, S. C. Beavers, F. Achaval, H. Sukanuma, R. L. Pitman, Y. Yamaguchi, and C. Ma Prigioni. 1994. Impalement of marine turtles (Reptilia, Chelonia: Cheloniidae and Dermochelyidae) by billfishes (Osteichthyes, Perciformes: Istiophoridae and Xiphiidae). *Environmental Biology of Fishes* 39:85-96.
- Fierstine, H. L., and O. Crimmen. 1996. Two erroneous, commonly cited examples of "swordfish" piercing wooden ships. *Copeia* 1996(2):472-475.
- Fierstine, H. L., and N. L. Voigt. 1996. Use of rostral characters for identifying adult billfishes (Teleostei: Perciformes: Istiophoridae and Xiphiidae). *Copeia* 1996(1):148-161.
- Fierstine, H. L., and O. Crimmen. 1996. Two erroneous, commonly cited examples of "swordfish" piercing wooden ships. *Copeia* 1996(2):472-475.
- Fierstine, H. L., G. M. Cailliet, and J. A. Neer. 1997. Shortfin Mako, *Isurus oxyrinchus*, impaled by blue marlin, *Makaira nigricans* (Teleostei: Istiophoridae). *Bulletin of the Southern California Academy of Sciences* 96(3):117-121.
- Fierstine, H. L. 1997. An Atlantic blue marlin, *Makaira nigricans*, impaled by two species of billfishes (Teleostei: Istiophoridae). *Bulletin of Marine Science* 61(2):495-499.
- Fierstine, H. L. 1998. *Makaira* sp., cf. *M. nigricans* Lacépède, 1802 (Teleostei: Perciformes: Istiophoridae) from the Eastover Formation, Late Miocene, Virginia, and a reexamination of *Istiophorus calvertensis* Berry, 1917. *Journal of Vertebrate Paleontology* 18(1):30-42.

- Fierstine, H. L. 1999. *Makaira* sp., cf. *M. nigricans* Lacépède, 1802 (Teleostei: Perciformes: Istiophoridae) from the Late Miocene, Panama, and its probable use of the Panama Seaway. *Journal of Vertebrate Paleontology* 19(3):430-437.
- Fierstine, H. L. 1999. A new shortbilled marlin of the genus *Makaira*, from the Yorktown Formation (Early Pliocene), eastern North Carolina at Lee Creek Mine, USA. *Tertiary Research* 19(3+4):71-77.
- Fierstine, H. L., S. P. Applegate, G. González-Barba, T. Schwennicke, and L. Espinosa-Arrubarrena. 2001. A fossil blue marlin (*Makaira nigricans* Lacépède) from the middle facies of the Trinidad Formation (Upper Miocene to Upper Pliocene), San José del Cabo Basin, Baja California Sur, México. *Bulletin of the Southern California Academy of Sciences* 100(2):59-73.
- Fierstine, H. L. 2001. Analysis and new records of billfish (Teleostei: Perciformes: Istiophoridae) from the Yorktown Formation, Early Pliocene of Eastern North Carolina at Lee Creek Mine, pp. 21-69 in C. E. Ray and D. J. Bohaska (eds.), *Geology and paleontology of the Lee Creek Mine, North Carolina*. III. *Smithsonian Contributions to Paleobiology*, number 90.
- Fierstine, H. L. 2001. A new *Aglyptorhynchus* (Perciformes: Scombroidei: ?Blochiidae) from the Late Oligocene of Oregon. *Journal of Vertebrate Paleontology* 21(1):24-33.
- Fierstine, H. L., and K. A. Monsch. 2001. Redescription and phylogenetic relationships of the Family Blochiidae (Perciformes: Scombroidei), Middle Eocene, Monte Bolca, Italy. *Miscellanea Paleontologica, Studi e Ricerche sui Giacimenti Terziari di Bolca, Museo Civico di Storia Naturale di Verona* 9:121-163.
- Schneider, V. P., and H. L. Fierstine. 2004. Fossil tuna vertebrae punctured by istiophorid billfishes. *Journal of Vertebrate Paleontology* 24(1):253-255.
- Monsch, K. A., H. L. Fierstine, and R. E. Weems. 2005. Taxonomic revision and stratigraphic provenance of '*Histiophorus rotundus*' Woodward 1901 (Teleostei, Perciformes). *Journal of Vertebrate Paleontology* 25(2):274-279.
- Fierstine, H. L., and J. E. Starnes. 2005. *Xiphiorhynchus* cf. *X. eocaenicus* (Woodward, 1901), (Scombroidei: Xiphiidae: Xiphiorhynchinae) from the Middle Eocene of Mississippi, the first transatlantic distribution of a species of *Xiphiorhynchus*. *Journal of Vertebrate Paleontology* 25(2):280-287.
- Fierstine, H. L. 2005. A new *Aglyptorhynchus* (Perciformes: Scombroidei) from the Lincoln Creek Formation (Late Oligocene, Washington, U.S.A.). *Journal of Vertebrate Paleontology* 25(2):288-299.
- Fierstine, H. L. 2006. Fossil history of billfishes (Xiphioidei). *Bulletin of Marine Science* 79(3):433-453.
- Fierstine, H. L., and G. L. Stringer. 2007. Specimens of the billfish *Xiphiorhynchus* van Beneden, 1871, from the Yazoo Clay Formation (Late Eocene), Louisiana. *Journal of Vertebrate Paleontology* 27(1):226-231.

- Fierstine, H. L. 2007. Description of two nearly complete fossil specimens of the swordfish, *Xiphias gladius* Linnaeus, 1758, from the Marecchia River deposits (Late Pliocene), Italy, and their comparison with the extant swordfish. *Bollettino del Museo Civico di Storia Naturale di Verona* 31:43-49.
- Fierstine, H.L., A. F. Bannikov, and K. A. Monsch. 2008. A new species of the extinct billfish genus *Palaeorhynchus* (Perciformes, Xiphoidei, Palaeorhynchidae) from the late early Eocene of Bolca in northern Italy. *Miscellanea Paleontologica*, no. 9, Studi e Ricerche sui Giacimenti Terziari di Bolca 12:7-28.
- Fierstine, H. L. 2008. A fossil skull of the extant blue marlin (*Makaira nigricans* Lacepède, 1802) from the late Miocene of Orange County, California. *Bulletin of the Southern California Academy of Sciences* 107(2):45-56.
- Fierstine, H.L., and P. D. Gingerich. In press. A second and more complete rostrum of *Xiphiorhynchus aegyptiacus* Weiler, 1929, (Perciformes: Xiphoidei: Xiphiidae; Xiphiorhynchinae), from the Birket Qarun Formation, Upper Eocene, Egypt. *Journal of Vertebrate Paleontology*
- Fierstine H. L., and F. H. Pfeil. In press. *Xiphiorrhynchoides haeringensis*, a new genus and species of Billfish (Perciformes; Xiphoidei: Xiphiidae: Xiphiorhynchinae) from Bad Häring, Tyrol, Austria, Lower Oligocene (NP22). *PalaeoIchthyologica* 11:
- Fierstine, H. L., and R. E. Weems. In press. Paleontology of the Oligocene Ashley and Chandler Bridge Formations of South Carolina, 4: Analysis and New Records of Billfishes (Perciformes: Xiphoidei). *PalaeoIchthyologica* 11: