

Stephen M. Kajiura

321 Steinhaus Hall, University of California, Irvine, CA 96897 USA
kajiura@uci.edu, 949-689-8504, 949-824-2181 (fax)
biomechanics.bio.uci.edu/kajiura

EDUCATION

PhD (Zoology), University of Hawaii at Manoa. “Electroreception in carcharhinid and sphyrnid sharks”, 2001.

MS (Marine Biology), Florida Institute of Technology. “Seasonal dynamics of dental sexual dimorphism in the Atlantic stingray, *Dasyatis sabina*”, 1994.

Honours BSc (Marine Biology), University of Guelph, Canada, 1991.

HONORS & AWARDS

Faculty Career Development Award, University of California - Irvine, 2003.

Scholander Prize Finalist, American Physiological Society, 2002.

Honorable mention, NSERC post-doctoral fellowship, 2002.

Recipient, University of Hawaii Sandina Lord Scholarship, 2001.

Student Travel Award, University of Hawaii Graduate Student Organization, 2000.

Outstanding Student Paper, Samuel H. Gruber Award, 1994.

Student Travel Award, American Elasmobranch Society, 1994.

Outstanding Student Paper in Biology, Florida Academy of Sciences, 1994.

Best Student Paper, Florida Institute of Technology Sigma Xi Club, 1994.

RESEARCH EXPERIENCE

Postdoctoral Researcher. *University of California, Biomechanics Laboratory.* Test hypotheses for the evolution of the hammerhead shark cephalofoil; examine mechanical properties and biochemical composition of elasmobranch cartilage, 2002-Present

Visiting Postdoctoral Researcher. *Shriners Hospital, Skeletal Biology Section.* Tested mechanical properties and assayed biochemical composition of elasmobranch tissue, 2002.

Research Assistant. *University of Hawaii, Pelagic Fisheries Research Program.* Tagged tuna, extracted otoliths, managed database for the Hawaii Tuna Tagging Program, 1995-2001.

Graduate Assistant. *University of Hawaii, Shark Research Group.* Tested electroreceptive capabilities of juvenile sandbar and scalloped hammerhead sharks;

assisted with tiger shark tagging and tracking; collected long term growth data on captive carcharhinid and sphyrnid sharks, 1994-2001.

Research Assistant. *University of Hawaii, Oceanography Department.* Collected and maintained populations of Hawaiian stream gobies; extracted otoliths for microconstituent analysis; digitized and analyzed otolith growth rings, 1994-1995.

Graduate Assistant. *Florida Institute of Technology, Elasmobranch Lab.* Organized monthly stingray collection expeditions, assisted with shark long lining and tagging, maintained captive stingrays, 1992-1994.

Undergraduate Research Assistant. *University of Guelph, Karpata Ecological Station.* Assisted with study of social behavior of green razorfish in the field, 1991.

GRANTS

UCI Faculty Career Development: \$1000

Sandina Lord Scholarship: \$2000

University of Hawaii Graduate Student Organization: \$717

ASIH (Raney fund): \$640

American Elasmobranch Society: \$749

Lerner-Gray: \$540

Sigma-Xi: \$390

PUBLICATIONS

1. Kajiura, SM, JB Forni & AP Summers. Olfactory morphology of carcharhinid and sphyrnid sharks – does the cephalofoil confer a sensory advantage? **Journal of Morphology**, in review.
2. Kajiura, SM. 2003. Electoreception in neonatal bonnethead sharks, *Sphyrna tiburo*. **Marine Biology** 143: 603-611.
3. Summers, AP, MM Koob-Emunds, SM Kajiura & TJ Koob. 2003. A novel fibrocartilaginous tendon from an elasmobranch fish (*Rhinoptera bonasus*). **Cell & Tissue Research** 312: 221-227.
4. Kajiura, SM, JB Forni & AP Summers. 2003. Maneuvering in juvenile carcharhinid and sphyrnid sharks: the role of the hammerhead shark cephalofoil. **Zoology** 106(1): 19-28 (with cover).
5. Nelson, PA, SM Kajiura & GS Losey. 2003. Exposure to solar radiation may increase ocular UV-filtering in the juvenile scalloped hammerhead shark, *Sphyrna lewini*. **Marine Biology** 142(1): 53-56.
6. Kajiura, SM & KN Holland. 2002. Electoreception in juvenile scalloped hammerhead and sandbar sharks. **Journal of Experimental Biology** 205(23): 3609-3621.

7. Young FA, SM Kajiura, GV Visser, JPS Correia & MFL Smith. 2002. Notes on the long-term transport of the scalloped hammerhead shark (*Sphyrna lewini*). **Zoo Biology** 21(3): 243-251.
8. Holland, KN, AC Bush, CG Meyer, SM Kajiura, BM Wetherbee & CG Lowe. 2001. Five tags applied to a single species in a single location: the tiger shark experience. pp. 237-247 in JR Sibert & JL Nielsen, eds. Electronic tagging and tracking in marine fisheries. Kluwer Academic Publishers, The Netherlands.
9. Holland, KN, SM Kajiura, DG Itano & J Sibert. 2001. Tagging techniques can elucidate the biology and exploitation of aggregated pelagic species. pp. 211-218 in GR Sedberry, ed. Island in the stream: oceanography and fisheries of the Charleston Bump. American Fisheries Society, Symposium 25, Bethesda, Maryland.
10. Kajiura, SM. 2001. Head morphology and electrosensory pore distribution of carcharhinid and sphyrenid sharks. **Environmental Biology of Fishes** 61(2): 125-133.
11. Wetherbee, BM & SM Kajiura. 2000. Occurrence of a rare squaloid shark, *Trigonognathus kabeyai*, from the Hawaiian islands. **Pacific Science** 54(4): 389-394.
12. Kajiura, SM, AP Sebastian & TC Tricas. 2000. Dermal bite wounds as indicators of reproductive seasonality and behaviour in the Atlantic stingray, *Dasyatis sabina*. **Environmental Biology of Fishes** 58(1): 23-31.
13. Holland, KN, P Kleiber & SM Kajiura. 1999. Different residence times of yellowfin tuna, *Thunnus albacares*, and bigeye tuna, *T. obesus*, found in mixed aggregations over a seamount. **Fisheries Bulletin** 97: 392-395.
14. Kajiura, SM & TC Tricas. 1996. Seasonal dynamics of dental sexual dimorphism in the Atlantic stingray, *Dasyatis sabina*. **Journal of Experimental Biology** 199(10): 2297-9306.
15. Nemtsov, SC, SM Kajiura & CA Lompart. 1993. Diel color phase changes in the coney *Epinephelus fulvus* (Teleostei, Serranidae). **Copeia** 1993(3): 883-885.

24 CONFERENCES ATTENDED

21 PUBLISHED ABSTRACTS

11 CONTRIBUTED PRESENTATIONS (9 ORAL, 2 POSTERS)

RESEARCH SKILLS

Quantitative digital video analysis

Small boat handling

Specimen dissection, preservation,
curation

Aquarium design & animal husbandry

PADI advanced scuba certification

Ultrasonic telemetry

TEACHING EXPERIENCE

Instructor - *Human anatomy*, University of California, 2002-2003.

Undergraduate research advisor (2 minority women), University of California, 2002.

Guest lecturer - *Marine biology*, University of Hawaii, 1998-2001.

Undergraduate thesis advisor (1 minority woman, 2 men), University of Hawaii & Hawaii Pacific University, 1996-2000.

Guest lecturer - *Biology for non-majors*, Hawaii Pacific University, 2000.

Teaching assistant - *Fish biology, Coral reef fish biology, Marine ecology*, Florida Institute of Technology, 1993-1994.

INVITED SEMINARS

UCI University Club Forum, 2003

Florida International University, 2003

Los Angeles County Museum of Natural History, 2003

Florida Atlantic University, 2003

University of California – Riverside, 2002

California State University – Long Beach, 2002

Mote Marine Laboratory, 2002

University of South Florida, 2002

University of California – Irvine, 2002

Newfound Harbor Marine Institute, 1997, 1998

REVIEWER

Environmental Biology of Fishes, Aquatic Mammals, Pacific Science, Journal of Experimental Zoology, Journal of Morphology, Behavioral Neuroscience

PROFESSIONAL SOCIETY MEMBERSHIPS

American Elasmobranch Society

Nominating committee member, 2001.

American Physiological Society

American Society of Ichthyologists and Herpetologists

Society for Integrative and Comparative Biology

OUTREACH AND COMMUNITY SERVICE

Consultant - State of Hawaii DLNR shark information webpage, 2003.

Judge - Student Research Competition, California State University, 2002.

Instructor - “*Reef Trackers*” course, Waikiki Aquarium, 2001.

Instructor - Secondary School Science Teachers workshop, Bishop Museum, 2001.

Judge - State Science Fair, Hawaii Private Schools, 2000.

Instructor - Staff training series, Maui Ocean Center, 1999-2001.

Instructor - “*Shark Biology*” course, Newfound Harbor Marine Institute, 1997-1998.

Guest speaker - 8 local elementary and high schools, 1996-2000.

POPULAR MEDIA EXPOSURE

Television: BBC, Discovery Channel, Animal Planet, National Geographic

Radio: NPR Todd Mundt show, CBC Quirks & Quarks, NPR Earth & Sky

Print: Islands, New Scientist, Natural History, Nature Australia, Der Spiegel, The Guardian (UK)

REFERENCES

Dr. Adam P. Summers (*Post-doctoral advisor*) Ecology & Evolutionary Biology, University of California, Irvine, CA 92697, 949-824-9359, asummers@uci.edu.

Dr. Kim N. Holland (*PhD advisor*) Hawaii Institute of Marine Biology, University of Hawaii at Manoa, PO Box 1346, Kaneohe, HI 96744, 808-236-7410, kholland@hawaii.edu.

Dr. Timothy C. Tricas (*MS advisor*) Department of Zoology, University of Hawaii at Manoa, Honolulu, HI 96822, 808-976-6148, tricas@hawaii.edu.

Dr. Jose I. Castro (*Collaborator*) Mote Marine Laboratory, 1600 Ken Thompson Parkway, Sarasota, FL 34236, 941-388-4441, jcastro@mote.org.

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