10.1071/MF10046_AC

Marine Freshwater Research 2010, 61(12), 1447–1457

MF10046: Accessory Publication

Locomotory activity and depth distribution of adult great barracuda (*Sphyraena barracuda*) in Bahamian coastal habitats determined using acceleration and pressure biotelemetry transmitters

A.C. O'Toole[A,B], K.J. Murchie[A,B], C. Pullen[A,B], K.C. Hanson[A, C], C.D. Suski[B,D], A.J. Danylchuk[B,E], and S.J. Cooke[A,B,F]

[A]Fish Ecology and Conservation Physiology Laboratory, Department of Biology, Carleton University, Ottawa, Ontario, Canada K1S 5B6

[B]Flats Ecology and Conservation Program, Cape Eleuthera Institute, Eleuthera, The Bahamas

[C]Abernathy Fish Technology Center, U.S. Fish and Wildlife Service, 1440 Abernathy Creek Rd., Longview, WA USA 98632

[D]Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL USA 61801

[E]Department of Natural Resources Conservation, University of Massachusetts Amherst, Amherst, MA USA 01003-9285

[F]Institute of Environmental Science, Carleton University, Ottawa, Ontario, Canada K1S 5B6

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Table A1. Summary of field acceleration values (m s^{-2}) of six individual wild *S. barracuda* detected using acoustic telemetry off the coast of Cape Eleuthera, The Bahamas December, 2008 – April, 2009.

Habitat	Fish ID	N	Mean acceleration ± SE (m s^{-2})	Modal acceleration (m s^{-2})	Min acceleration (m s^{-2})	Max acceleration (m s^{-2})
Coastal	205	1	0.48 ± 0.00	0.48	0.48	0.48
	229	206	0.95 ± 0.03	0.54	0.34	3.47
	253	917	0.85 ± 0.01	0.69	0.05	3.47
Total coastal		1124	0.87 ± 0.01	0.54	0.05	3.47
Mosaic	153	375	0.52 ± 0.02	0.44	0.10	3.47
	205	72	0.45 ± 0.03	0.35	0.10	1.54
	221	103	0.88 ± 0.05	0.84	0.14	3.47
	223	18	0.87 ± 0.07	0.72	0.42	1.63
	253	20	1.11 ± 0.15	0.49	0.45	3.47
Total mosaic		588	0.60 ± 0.02	0.42	0.10	3.47
Shelf	153	28	0.66 ± 0.10	0.45	0.26	2.86
	221	1028	0.80 ± 0.01	0.52	0.12	3.47
	223	413	0.73 ± 0.02	0.56	0.25	2.89
	229	1	0.80 ± 0.00	0.80	0.80	0.80
	253	293	0.79 ± 0.02	0.52	0.30	2.21
Total shelf		1763	0.78 ± 0.01	0.52	0.12	3.47
Grand total		3475	0.78 ± 0.01	0.52	0.05	3.47

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Table A2. Summary of statistical results from repeated measures one-way ANOVA for $\log_{10}$-transformed acceleration of wild *S. barracuda* across habitat types and diel periods. Statistically significant values are shown in italics ($\alpha = 0.05$).

Variable		F-value	d.f.	P-value
Habitat	Whole Model	43.37	12, 3462	*< 0.0001*
	Habitat	0.18	2, 48	0.8330
	ID	21.32	10, 3462	*< 0.0001*
Diel	Whole Model	47.46	11, 3463	*< 0.0001*
	Diel	0.04	1, 12	0.8511
	ID	50.37	10, 3463	*< 0.0001*

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Table A3. Summary of field depth values of six individual *S. barracuda* detected using acoustic telemetry off the coast of Cape Eleuthera, The Bahamas December, 2008 – April, 2009.

Habitat	Fish ID	N	Mean depth ± SE (m)	Modal depth (m)	Min depth (m)	Max depth (m)
Coastal	229	189	1.47 ± 0.04	1.00	0.56	3.20
	253	870	2.02 ± 0.03	1.00	0.12	7.60
Total coastal		1059	1.92 ± 0.03	1.00	0.12	7.60
Mosaic	153	367	4.07 ± 0.06	4.62	0.00	6.15
	205	56	6.46 ± 0.12	6.72	3.64	7.60
	221	103	4.49 ± 0.26	1.88	1.00	8.48
	223	24	3.31 ± 0.17	3.64	1.00	4.52
	253	15	2.99 ± 0.45	1.00	0.56	6.72
Total mosaic		565	4.32 ± 0.07	4.62	0.00	8.48
Shelf	153	37	4.26 ± 0.26	3.96	1.54	9.89
	221	1063	5.76 ± 0.12	1.44	1.00	22.11
	223	407	14.02 ± 0.19	12.87	3.64	25.62
	253	299	13.90 ± 0.30	15.95	1.00	32.22
Total shelf		1806	8.94 ± 0.14	1.44	1.00	32.22
Grand total		3430	6.01 ± 0.09	1.44	0.00	32.22

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Table A4. Summary of statistical results from repeated measures one-way ANOVA for $\log_{10}$-transformed depth of *S. barracuda* across diel periods within each habitat type. Statistically significant values are shown in italics ($\alpha = 0.05$).

Habitat type		F-value	d.f.	P-value
Coastal	Whole Model	20.44	3, 1055	< *0.0001*
	Diel	0.93	1, 2	0.4255
	ID	29.61	2, 1055	< *0.0001*
Mosaic	Whole Model	12.16	8, 551	< *0.0001*
	Diel	0.09	1, 16	0.7700
	ID	13.76	7, 551	< *0.0001*
Shelf	Whole Model	158.17	7, 1798	< *0.0001*
	Diel	0.03	1, 7	0.8785
	ID	167.41	6, 1798	< *0.0001*

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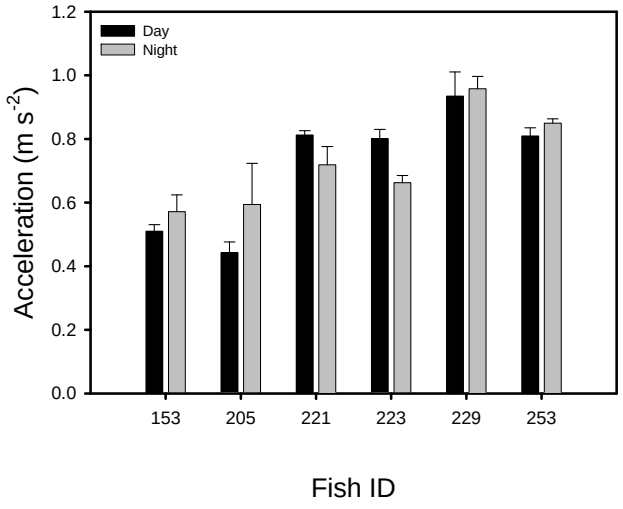

Fig. A1. Mean (±SE) acceleration (m s^{-2}) of six *S. barracuda* across diel periods.