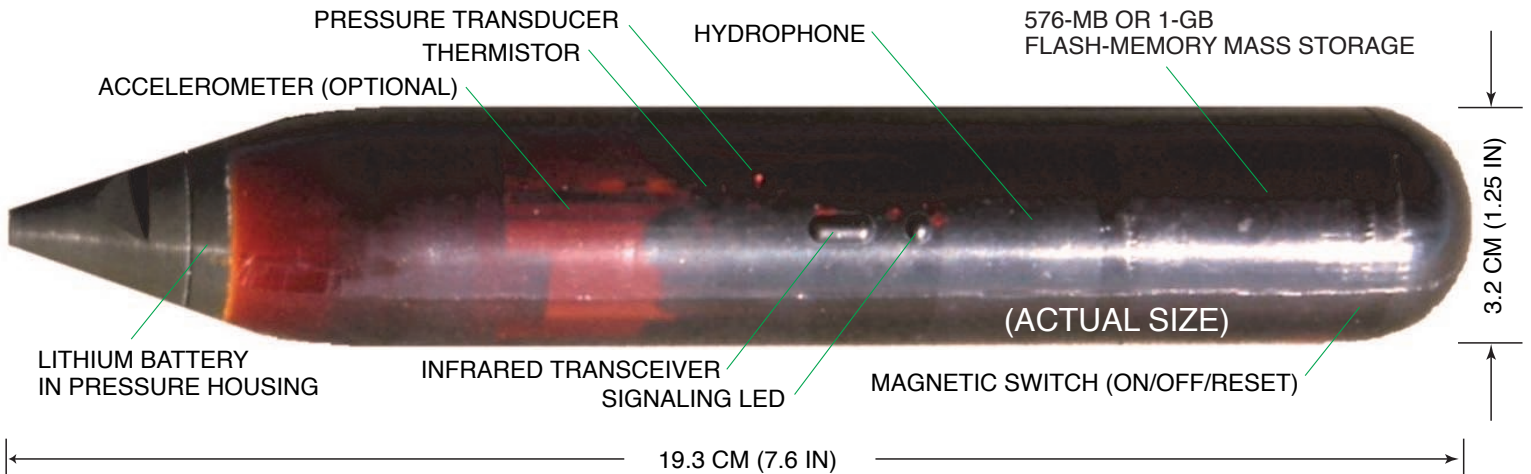


BIOACOUSTIC PROBE ACOUSTIC RECORDING TAG



The *Bioacoustic Probe* combines a hydrophone, behavioral sensors, a digital recorder, data storage, and a field-replaceable battery in a single, self-contained instrument. Attached to a free-ranging subject with suction cups or other means, the “B-Probe” can measure the underwater sound environment experienced by that individual, as well as potentially associated changes in dive behavior.



Lori Mazzuca



Ward Testa

In addition to its primary mission as a tool for assessing the impact of noise on marine wildlife, the Bioacoustic Probe can be used to study vocalization behavior of the tagged subject. The instrument may also be applied as a simple autonomous recorder, suspended from a buoy or placed on the seafloor.



Lori Mazzuca

SPECIFICATIONS

Maximum designed operating depth	Typically limited by choice of pressure sensor; max 2000 m
Maximum tested depth	Two units tested to 2000 m (March 2003)
Maximum continuous acoustic sampling rate	20 kHz (sampling rates over 10 kHz may require larger battery)
Saturation at 0-dB gain, re 1 μ Pa zero-peak	172 dB (190-dB option available)
Acoustic gains, user selectable	0/10/20 dB
Acoustic sampling resolution	16 bits
Auxiliary sampling rate	1 Hz
Auxiliary sampling resolution	16 bits
Auxiliary sampling channels	Dive depth (pressure)
	Tag temperature
	2-D acceleration/tilt, in g's (option)
Storage capacity	576 MB (1-GB option available)
Life at 2 kHz acoustic sampling rate	41 h (for 576-MB storage unit)
Maximum measured data download rate	5.3 kbytes/s, via infrared