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The huaka'i of Hawaiian monk seal *Kekoa*: conservation through sound science

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The Hawaiian monk seal (*Neomonachus schauinslandi*) is an endangered marine mammal and the subject of significant conservation concern. Limited bioacoustic information was available for this species until recently. The adult male Hawaiian monk seal *Kekoa* (KE18) was removed from the wild after repeated problematic interactions with conspecifics; he was then transferred temporarily to UC Santa Cruz, where he participated in studies to increase understanding of monk seal auditory biology. Compared to other seals, *Kekoa's* behavioral hearing data suggest that monk seals have less sensitive hearing and a reduced functional frequency range of hearing in air and under water. A year-round characterization of his spontaneous underwater vocalizations revealed at least six low-frequency call types with a simultaneous peak in calling behavior and testosterone levels during the breeding season. *Kekoa's* huaka'i, or journey, has provided the first description of underwater communication for this protected species and contributed much-needed perspective about amphibious hearing abilities. *Kekoa's* work has also inspired ongoing research with captive and wild individuals to confirm species-level traits in sound reception and production. These efforts have applications to studies of free-ranging monk seals through passive acoustic monitoring, development of automated call detectors, and the use of multi-sensor biologging devices.

Special Session: Contributions of Expert Subjects to Animal Bioacoustics