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Descrizione fisica	1 online resource (XI, 506 p. 1 illus. in color.)
Disciplina	590
Soggetti	Zoology Sound Animal sounds Ecology Animal behavior Physiology Underwater acoustics Acoustics Behavioral Ecology Animal Physiology Underwater Acoustics Sons dels animals Enregistrament i reproducció del so Llibres electrònics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Advances in Bioacoustical Methods and Equipment -- Data collection methods -- Equipment Considerations -- Environmental effects on sound -- Source-path-receiver Model for airborne sounds -- Source-path-receiver Model for underwater sounds -- Sound Analysis Methods, Displays, Key acoustic terms -- Analysis Displays of animal sounds -- Statistical analysis and classification methods used in bioacoustical research -- Anatomical, behavioral, and physiological methods for audiometric studies on animals -- Effects of

anthropogenic noise by taxa -- Future equipment, methods, and analysis in bioacoustics -- Glossary of Terms.

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Sommario/riassunto

This open-access book empowers its readers to explore the acoustic world of animals. By listening to the sounds of nature, we can study animal behavior, distribution, and demographics; their habitat characteristics and needs; and the effects of noise. Sound recording is an efficient and affordable tool, independent of daylight and weather; and recorders may be left in place for many months at a time, continuously collecting data on animals and their environment. This book builds the skills and knowledge necessary to collect and interpret acoustic data from terrestrial and marine environments. Beginning with a history of sound recording, the chapters provide an overview of off-the-shelf recording equipment and analysis tools (including automated signal detectors and statistical methods); audiometric methods; acoustic terminology, quantities, and units; sound propagation in air and under water; soundscapes of terrestrial and marine habitats; animal acoustic and vibrational communication; echolocation; and the effects of noise. This book will be useful to students and researchers of animal ecology who wish to add acoustics to their toolbox, as well as to environmental managers in industry and government.

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