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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Preface -- Noise-Induced Hearing Loss: Permanent Versus Temporary Threshold Shifts and the Effects of Hair Cell Versus Neuronal Degeneration -- Modeled and Measured Underwater Sound Isopleths and Implications for Marine Mammal Mitigation in Alaska -- Sources of Underwater Sound and Their Characterization -- Assessment of Marine Mammal Impact Zones for Use of Military Sonar in the Baltic Sea -- Contribution to the Understanding of Particle Motion Perception in Marine Invertebrates -- Functional Morphology and Symmetry in the Odontocete Ear Complex -- A Low-Cost Open-Source Acoustic Recorder for Bioacoustics Research -- Assessment of Impulsive and Continuous Low-Frequency Noise in Irish Waters -- Is the Venice Lagoon Noisy? First Passive Listening Monitoring of the Venice Lagoon: Possible Effects on the Typical Fish Community -- Effect of Pile-Driving Sounds on the Survival of Larval Fish -- Challenge of Using Passive Acoustic Monitoring in High-Energy Environments: UK Tidal Environments and Other Case Studies -- Hearing Mechanisms and Noise Metrics Related to Auditory Masking in Bottlenose Dolphins

(*Tursiops truncatus*) -- Effects of Hatchery Rearing on the Structure and Function of salmonid Mechanosensory Systems -- The Effects of Impulsive Pile Driving Exposure on Fishes -- Review of the Effects of Offshore Seismic Surveys in Cetaceans: Are Mass Strandings a Possibility? -- Addressing Challenges in Studies of Behavioral Responses of Whales to Noise -- Measurements of Operational Wind Turbine Noise in UK Waters -- A Bioenergetics Approach to Understanding the Population Consequences of Disturbance: Elephant Seals as a Model System -- Singing Fish in an Ocean of Noise: Effects of Boat Noise on the Plainfin Midshipman (*Porichthys notatus*) in a Natural Ecosystem -- Detection of Complex Sounds in Quiet Conditions by Seals and Sea Lions -- Offshore Dredger Sounds: Source Levels, Sound Maps, and Risk Assessment -- Peer-Reviewed Studies on the Effects of Anthropogenic Noise on Marine Invertebrates: From Scallop Larvae to Giant Squid -- Effects of Offshore Wind Farms on the Early Life Stages of *Dicentrarchus labrax* -- The European Marine Strategy: Noise Monitoring in European Marine Waters from 2014 -- Potential Population Consequences of Active Sonar Disturbance in Atlantic Herring: Estimating the Maximum Risk -- Fulfilling EU Laws to Ensure Marine Mammal Protection During Marine Renewable Construction Operations in Scotland -- Expert Elicitation Methods in Quantifying the Consequences from Acoustic Disturbance From Offshore Renewable Energy Developments -- Masking Experiments in Humans and Birds Using Anthropogenic Noises -- Documenting and Assessing Dolphin Calls and Ambient and Anthropogenic Noise Levels via PAM and an SPL Meter -- Soundscapes and Larval Settlement: Larval Bivalve Responses to Habitat-Associated Underwater Sounds -- Characterizing Marine Soundscapes -- Pile-Driving Noise Impairs Antipredator Behavior of the European Sea Bass *Dicentrarchus labrax* -- Using Reaction Time and Equal Latency Contours to Derive Auditory Weighting Functions in Sea Lions and Dolphins -- Does Primary Productivity Turn Up the Volume? Exploring the Relationship Between Chlorophyll *a* and the Soundscape of Coral Reefs in the Pacific -- Expert Elicitation of Population-Level Effects of Disturbance -- Current Status of Development of Methods to Assess Effects of Cumulative or Aggregated Underwater Sounds on Marine Mammals -- Seismic Survey Footprints in Irish Waters: A Starting Point for Effective Mitigation -- Stochastic Modeling of Behavioral Response to Anthropogenic Sounds -- Underwater Sound Levels at a Wave Energy Device Testing Facility in Falmouth Bay, UK -- Predicting Anthropogenic Noise Contributions to U.S. Waters -- Auditory Sensitivity and Masking Profiles for the Sea Otter (*Enhydra lutris*) -- Are Masking-Based Models of Risk Useful? -- "Large" Tank Acoustics: How Big is Big Enough? -- High-Resolution Analysis of Seismic Airgun Impulses and Their Reverberant Field as Contributors to an Acoustic Environment -- Underwater Sound Propagation Modeling Methods for Predicting Marine Animal Exposure -- Investigating the Effect of Tones and Frequency Sweeps on the Collective Behavior of Penned Herring (*Clupea harengus*) -- The Challenges of Analyzing Behavioral Response Study Data: An Overview of the MOCHA (Multi-study Ocean acoustics Human effects Analysis) Project -- National Oceanic and Atmospheric Administration's Cetacean and Sound Mapping Effort: Continuing Forward With an Integrated Ocean Noise Strategy -- Understanding the Population Consequences of Acoustic Disturbance for Marine Mammals -- Multiple-Pulse Sounds and Seals: Results of a Harbor Seal (*Phoca vitulina*) Telemetry Study During Wind Farm Construction -- Developing Sound Exposure Criteria for Fishes -- Calibration and Characterization of Autonomous Recorders Used in the Measurement of Underwater Noise -- Intrinsic Directional Information

of Ground Roll Waves -- A Permanent Soundscape Monitoring System for the Care of Animals in Aquaria -- Playback Experiments for Noise Exposure -- Natural Variation in Stress Hormones, Comparisons Across Matrices, and Impacts Resulting From Induced Stress in the Bottlenose Dolphin -- Risk Functions of Dolphins and Sea Lions Exposed to Sonar Signals -- Residency of Reef Fish During Pile Driving within a Shallow Pierside Environment -- Hidden Markov Models Capture Behavioral Responses to Suction-Cup Tag Deployment: A Functional State Approach to Behavioral Context -- A Change in the Use of Regulatory Criteria for Assessing Potential Impacts of Sound on Fishes -- In-Air and Underwater Hearing in the Great Cormorant (*Phalacrocorax carbo sinensis*) -- Stress Response and Habituation to Motorboat Noise in Two Coastal Fish Species in the Bothnian Sea -- Cumulative Effects of Exposure to Continuous and Intermittent Sounds on Temporary Hearing Threshold Shifts Induced in a Harbor Porpoise (*Phocoena phocoena*) -- Great Ears: Low Frequency Sensitivity Correlates in Land and Marine Leviathans -- What We Can Learn From Artificial Lateral Line Sensor Arrays? -- Protection of Marine Mammals -- Avoidance of Pile-Driving Noise by Hudson River Sturgeon During Construction of the New NY Bridge at Tappan Zee -- Methods for Predicting Potential Impacts of Pile-Driving Noise on Endangered Sturgeon During Bridge Construction -- Automatic Classification of Marine Mammals with Speaker Classification Methods -- Directional Hearing and Head-Related Transfer Function in Odontocete Cetaceans -- Controlled Sonar Exposure Experiments on Cetaceans in Norwegian Waters; Overview of the 3S-Project -- SOFAR: A New Sound-Acquisition Software Package for Underwater Noise Monitoring -- Passive Underwater Noise Attenuation Using Large Encapsulated Air Bubbles -- Measurement of Underwater Operational Noise Emitted by Wave and Tidal Stream Energy Devices -- Likely Age-Related Hearing Loss (Presbycusis) in a Stranded Indo-Pacific Humpback Dolphin (*Sousa chinensis*) -- Impacts of Underwater Noise on Marine Vertebrates: Project Introduction and First Results -- Soundscapes and Larval Settlement: Characterizing the Stimulus from a Larval Perspective -- Does Vessel Noise Affect Oyster Toadfish Calling Rates? -- Comparison of PAM Systems for Acoustic Monitoring and Further Risk Mitigation Application -- Cardiorespiratory Responses to Acoustic Noise in Belugas -- Acoustic Communication in Fishes and Potential Effects of Noise -- Evaluation of Three Sensor Types for Particle Motion Measurement -- Regional Variations and Trends in Ambient Noise: Examples from Australian Waters -- Spatial Patterns of Inshore Marine Soundscapes -- Soundscape and Noise Exposure Monitoring in a Marine Protected Area Using Shipping Data and Time-Lapse Footage -- Global Trends in Ocean Noise -- Pile-Driving Pressure and Particle Velocity at the Seabed: Quantifying Effects on Crustaceans and Groundfish -- Measuring Hearing in Wild Beluga Whales -- Auditory Discrimination of Natural and High-Pass Filtered Bark Vocalizations in a California Sea Lion (*Zalophus californianus*) -- Hearing Sensation Changes When a Warning Predicts a Loud Sound in the False Killer Whale (*Pseudorca crassidens*) -- Does Masking Matter? Shipping Noise and Fish Vocalizations -- Noise Mitigation During Pile Driving Efficiently Reduces Disturbance of Marine Mammals -- Noise Impact on European Sea Bass Behavior: Temporal Structure Matters -- Does Noise from Shipping and Boat Traffic Affect Predator Vigilance in the European Common Hermit Crab? -- The Use of Deep Water Berths and the Effect of Noise on Bottlenose Dolphins in the Shannon Estuary cSAC -- Sound Transmission Validation and Sensitivity Studies in Numerical Models -- Patterns of Occurrence and Marine Mammal Acoustic

Behavior in Relation to Navy Sonar Activity off Jacksonville, Florida -- Hearing in Whales and Dolphins: Relevance and Limitations -- Humans, Fish, and Whales: How Right Whales Modify Calling Behavior in Response to Shifting Background Noise Conditions -- Renewables, Shipping, and Protected Species: A Vanishing Opportunity for Effective Marine Spatial Planning? -- Are the 1/3-Octave 63- and 125-Hz Band Noise Levels Predictive of Vessel Activity? The Case in the Cres–Lošinj Archipelago (Northern Adriatic Sea, Croatia) -- The Good, the Bad, and the Distant: Soundscape Cues for Larval Fish -- Terrestrial Soundscapes: Status of Ecological Research in Natural and Human-Dominated Landscapes -- Effects of Underwater Turbine Noise on Crab Larval Metamorphosis -- Temporary Threshold Shifts in Naïve and Experienced Belugas: Can Dampening of the Effects of Fatiguing Sounds be Learned? -- Pile Driving at the New Bridge at Tappan Zee: Potential Environmental Impacts -- Effects of Seismic Airguns on Pallid Sturgeon and Paddlefish -- A Summary Comparison of Active Acoustic Detections and Visual Observations of Marine Mammals in the Canadian Beaufort Sea -- Use .

Sommario/riassunto

The meeting of Aquatic Noise 2013 will introduce participants to the most recent research data, regulatory issues and thinking about effects of man-made noise and will foster critical cross-disciplinary discussion between the participants. Emphasis will be on the cross-fertilization of ideas and findings across species and noise sources. As with its predecessor, The Effects of Noise on Aquatic Life: 3rd International Conference will encourage discussion of the impact of underwater sound, its regulation and mitigation of its effects. With over 100 contributions from leading researchers, a wide range of sources of underwater sound will be considered. .
