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Nota di contenuto	Contents -- 1. The Environment -- 2. Basic Physical Mechanisms -- 3. Thermal Balance and Thermoregulation -- 4. Heat Exchange Between Animals and Environment: Mammals and Birds -- 5. Heat Exchange Between Animals and Environment: Aquatic Mammals -- 6. Shade and Shelter -- 7. Thermal Stress Indexes -- 8. Special Methods -- Index.
Sommario/riassunto	Principles of Animal Biometeorology presents a thorough examination of the atmospheric environment in which animals live, and an equally comprehensive account of the processes of thermal energy exchanges between organisms and environment, with particular focus on tropical climates. The book begins by describing in detail the mechanisms of energy exchange – radiative, convective, conductive and evaporative – together with techniques for their determination. The discussion extends to the importance of CO ₂ , ozone and methane, together with that of aerosol pollutants and the evolution of atmospheric CO ₂ . Subsequent chapters apply the results of the biophysical methods to mammals, birds and aquatic animals. Discussion includes problems of shelter and shade for animals in tropical environments and techniques for the thermal evaluation for shelters and for several tree types. The details of heat exchange between animals and the environment are presented, in separate chapters covering Mammals and Birds and Aquatic Mammals. A chapter on Shade and Shelter describes the importance of shade for animals, factors of shade efficiency, the

protections offered by shelter and methods of calculating the protection afforded by both shade and shelter. A Special Methods chapter offers a variety of techniques for evaluating cutaneous and respiratory evaporation, and practical methods for sampling of hairs and the evaluation of hair coat characteristics. The text is further illuminated by numerous relevant tables, diagrams and mathematical formulae.
