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Autore	Southwood Richard, Sir.
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Nota di contenuto	Ecological Methods, Third Edition; Contents; Prefaces; 1: Introduction to the Study of Animal Populations; 1.1 Population estimates; 1.1.1 Absolute and related estimates; 1.1.2 Relative estimates; 1.1.3 Population indices; 1.2 Errors and confidence; References; 2: The Sampling Programme and the Measurement and Description of Dispersion; 2.1 Preliminary sampling; 2.1.1 Planning and fieldwork; 2.1.2 Statistical aspects; 2.2 The sampling programme; 2.2.1 The number of samples per habitat unit (e.g. plant, host, or puddle); 2.2.2 The sampling unit, its selection, size, and shape 2.2.3 The number of samples 2.2.4 The pattern of sampling; 2.2.5 The timing of sampling; 2.3 Data processing; 2.4 Jackknife and bootstrap techniques; 2.5 Dispersion; 2.5.1 Mathematical distributions that serve as models; 2.5.2 Biological interpretation of dispersion parameters; 2.5.3 Nearest-neighbour and related techniques: measures of departure from randomness of the distribution; 2.6 Sequential sampling; 2.6.1 Sampling numbers; 2.6.2 Presence or absence sampling; 2.6.3 Sampling a fauna; References; 3: Absolute Population Estimates Using Capture-Recapture Experiments

3.1 Capture-recapture methods; 3.1.1 Assumptions common to most methods; 3.1.2 Estimating closed populations; 3.1.3 Estimations for open populations; 3.2 Methods of marking animals; 3.2.1 Handling techniques; 3.2.2 Release; 3.2.3 Surface marks using paints and solutions of dyes; 3.2.4 Dyes and fluorescent substances in powder form; 3.2.5 Marking formed by ingestion or absorption of dyes; 3.2.6 Marking by injection, Panjet, or tattooing; 3.2.7 External tags; 3.2.8 Branding; 3.2.9 Mutilation; 3.2.10 Natural marks, parasites, and genes; 3.2.11 Rare elements; 3.2.12 Radioactive isotopes
3.2.13 Radio and sonic tags
References; 4: Absolute Population Estimates by Sampling a Unit of Habitat: Air, Plants, Plant Products, and Vertebrate Hosts; 4.1 Sampling from the air; 4.1.1 Sampling apparatus; 4.1.2 Rotary and other traps; 4.1.3 Comparison and efficiencies of the different types of suction traps; 4.1.4 Conversion of catch to aerial density; 4.1.5 Conversion of density to total aerial population; 4.2 Sampling from plants; 4.2.1 Assessing the plant; 4.2.2 Determining the numbers of invertebrates; 4.2.3 Special sampling problems with animals in plant material
4.3 Sampling from vertebrate hosts
4.3.1 Sampling from living hosts; 4.3.2 Sampling from dead hosts; 4.3.3 Sampling from vertebrate 'homes'; References; 5: Absolute Population Estimates by Sampling a Unit of Aquatic Habitat; 5.1 Open water; 5.1.1 Nets; 5.1.2 Pumps; 5.1.3 Water-sampling bottles; 5.1.4 The Patalas-Schindler volume sampler; 5.1.5 Particular methods for insects; 5.2 Vegetation; 5.2.1 Emergent vegetation; 5.2.2 Submerged vegetation; 5.2.3 Sampling floating vegetation; 5.3 Bottom fauna; 5.3.1 Hand-net sampling of forest litter; 5.3.2 Lifting stones
5.3.3 The planting of removable portions of the substrate

Sommario/riassunto

This classic text, whose First Edition one reviewer referred to as ""the ecologists' bible,"" has been substantially revised and rewritten. Not only have the advances made in the field since the Second Edition been taken into account, but the scope has been explicitly extended to all macroscopic animals, with particular attention being paid to fish as well as other vertebrates. Ecological Methods provides a unique synthesis of the methods and techniques available for the study of populations and ecosystems. Techniques used to obtain both absolute and relative population estimates
