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THE WILDLIFE STUDY AND ANALYSIS USING CAMERAS AND REMOTE ACCESS DEVICES

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Анотація

У даній статті розглянуто пристрої дослідження поведінки тварин у дикій природі, склад, будову та методи застосування таких пристроїв. Представлено вклад знань, добутих цим способом, у загальний розвиток науки та подано методики дослідження поведінки тварин у вільному житті, побудовані з використанням техніки.

Ключові слова: камера, природа, дослідження, тварини, документація, поведінка, територія, обробка інформації, важко доступні місця.

Abstract

Equipment for monitoring the behavior of animals in the wildlife, schemes, structures and methods of using such equipment are discussed in this article. The contribution of the knowledge obtained in this way into the global development of science and methods of exploration of animals' behavior in the wildlife using technology are presented.

Keywords: camera, nature, research, animal, records, behavior, surroundings, information processing, *difficult to access areas.*

Introduction

There are a variety of wildlife methods. Observers spend hours in the field recording data about wild animals. Aircraft are used to count large mammals such as elk, deer and seals. Radio-telemetry, radios attached to individual animals can be used to track animal movements, determine home range size and offer information on habitat use. Remote cameras can offer information about presence of wildlife species, numbers of individuals, behaviors and habitat selection.

Results

Wildlife viewing cameras are used worldwide to address a variety of research and management objectives for many wildlife species. They are an effective tool for investigating wildlife behavior and for documenting species presence and distribution. Obtaining information about wildlife events is the first step towards better disease intelligence and risk assessment at the animal/human/ecosystem interface that will improve early warning and support response when relevant [1].

Studies aiming to report on specific behaviors (feeding, reproduction, territoriality, social interaction, etc.) must direct sampling efforts to places of interests [2]. Depending on the data to be collected, the target animal species and the type of ecosystem, it is essential to first choose the appropriate equipment to collect the data needed, as not all camera models will be suitable for a specific research objective.

The information collected about wildlife in parks can be as simple as confirmation of the presence of a species or as detailed as the average number of young produced per female per year [3].

The process for reviewing photographs depends on the type of camera used. Early cameras produced video and required reviewing the images through the camera. Newer cameras produce digital images which can be reviewed on a computer. Higher frequency photography is useful for detecting subtle or sudden changes in presence and abundance, for example, those caused by tides or disturbance. Cameras programmed in this way can produce thousands of images, all requiring subsequent review.

Examples of data collected include descriptive data on wildlife behavior, disease prevalence and habitat selection and quantitative data on population size. Data can be used to inform managers on ways to

further protect wildlife from human-induced stresses, such as pollution, introduced invasive species and disturbance.

Conclusion

Cameras are used as an efficient method to insure continuous sampling and to work in difficult to access areas. Wildlife viewing cameras are currently used as a part of other wildlife research studies. Wildlife cameras are also an efficient and cost-effective way to supplement or replace human observers.

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