

FRM 308: WILDLIFE ECOLOGY AND MANAGEMENT



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Outline

PRELIMINARY INFORMATION

- Course Status
- Course Description
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COURSE SYNOPSIS

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LECTURE ONE

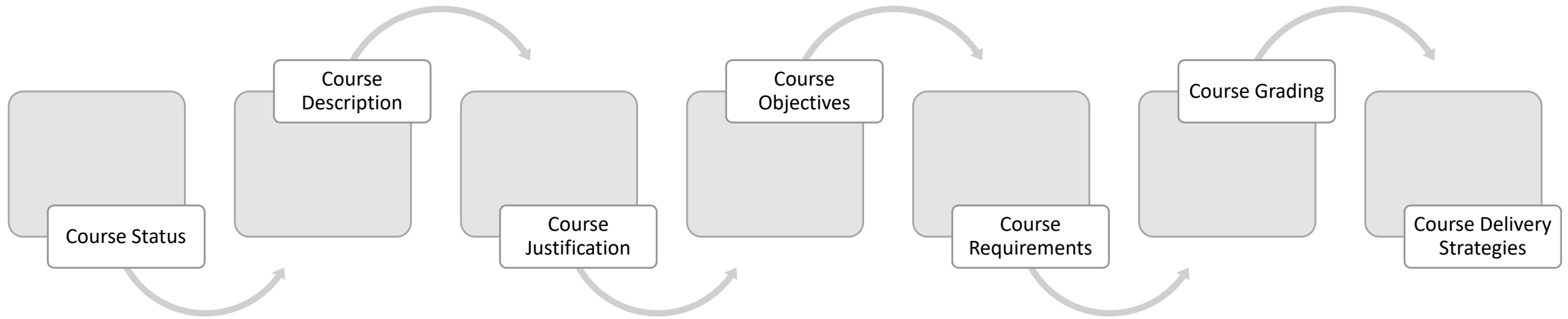
- Introduction to the Concept of Wildlife Ecology and Management



PRELIMINARY INFORMATION



PRELIMINARY INFORMATION



COURSE SYNOPSIS



TOPICS

Introduction to the Concept of Wildlife Ecology and Management

Wildlife in Relation to their Environment

Wildlife Populations

Food-Habitat Analysis in Relation to Wildlife Management

Ecology of Wildlife Behaviour

Range Assessment

Basic Principles of Wildlife Management

Fire as a Wildlife Management Tool



GENERAL READING LIST



LIST

- Ayodele, I.A., Ebin, C.O. & Alarape, A. A^{2,4}. (1999). Essentials of Wildlife Management. Jachin Publisher, Ibadan, 87p. ISBN 978-041-381-2.
- Bolen, ¹ E.G. and Robinson, W.L. (2003): Wildlife Ecology and Management. 5th Edition. Pearson Education, New Jersey. Pp 32-47. ISBN 0-13-066250.
- Glyn Davies (ed.)⁴ (2002). African Forest Biodiversity: a field survey manual for vertebrates. Earthwatch Institute (Europe). 161p. ISBN 0-9538179-4-6
- Silvy, N. J. 2012. The Wildlife Techniques Manual. The John Hopkins University Press, Baltimore, Maryland, USA. 1136 pp.
- Sinclair, A. R. E., Fryxell, J. M. and G. Caughley. 2006. Wildlife Ecology, Conservation and Management, Wiley-Blackwell, Oxford, UK. 469 pp
- White, L., Edwards, A. eds.. ⁴ (2000). *Conservation research in the African rain forests: a technical handbook*. Wildlife Conservation Society, New York. 444p. ISBN 0- 9632064-4-3 ENGLISH



LECTURE ONE



LECTURE ONE

Introduction to the Concept of Wildlife Ecology and Management



Lecture Objectives

define the term, *wildlife*;

explain the concept of wildlife ecology;

describe the essentials of wildlife management; and

highlight types of wildlife management approaches and goals.



Defining the term- *Wildlife*

Early definitions:

“Wild animals (undomesticated free-ranging animals) that could be hunted for sport or food”.

Issues:

- i. Restricted usage of the term to vertebrates.
- ii. Separates other groups of animals.
- iii. Does not include plants.



Defining the term- *Wildlife*

Later definitions (Beginning from the 1960s):

“Any member of the animal kingdom, including without limitation any mammal, bird, fish, amphibian, reptile, mollusk, crustacean, arthropod or other invertebrates”.

Issues:

- i. Many state and federal organizations make distinctions between wildlife, fish and fishery resources.
- ii. Professional realities further allude to (i) above.
- iii. Does not include plants.



Defining the term- *Wildlife*

Modern day definitions:

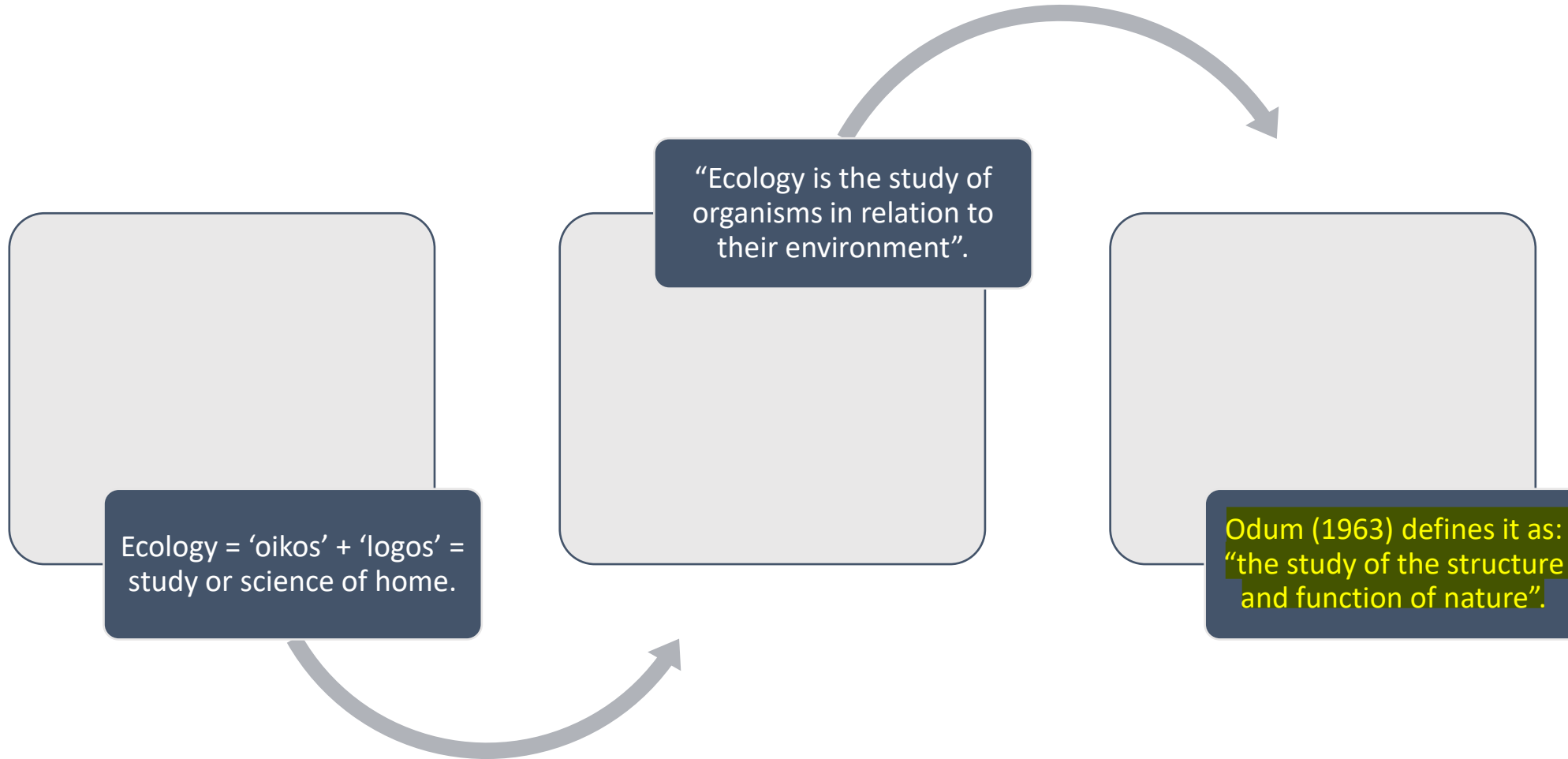
“All living organisms outside the direct control of man (i.e. all non-cultivated plants and undomesticated animals)”.

Issues:

- i. Common usage, public perceptions, funding allocations and history still regards wildlife as undomesticated free-ranging vertebrates.
- ii. Overwhelming preponderance of research and management efforts focus on mammals and birds.



Concept of Wildlife Ecology



Concept of Wildlife Ecology (Cont...)

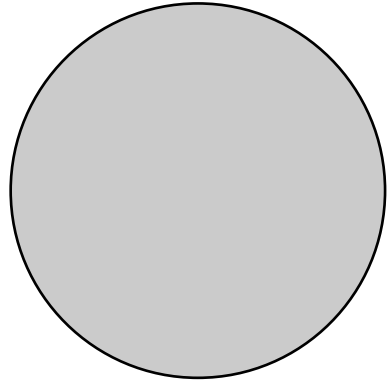
Wildlife Ecology is study of nature, structure and functions of wild organisms in relation to their environment.

It includes investigation of:

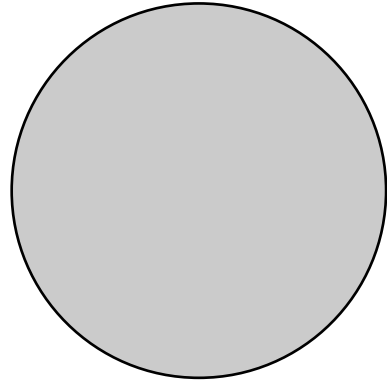
- species composition and sociological interactions of species communities.
- Correlations between environment and species composition and survival.
- Factors affecting the distribution and abundance of species.
- Food and Feeding habits in wild animals.
- Wildlife Movements, Lifecycles, Reproduction etc.



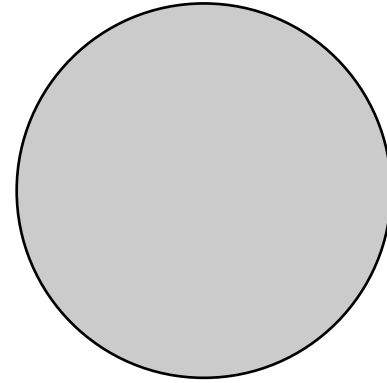
Meaning and Essentials of Wildlife Management



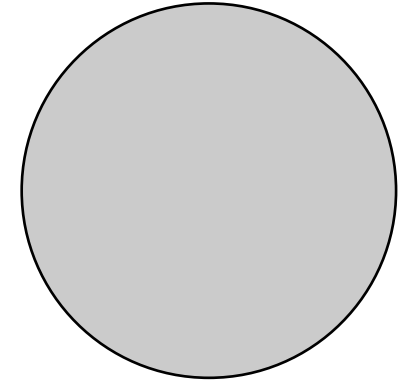
'Wildlife Management' is the active manipulation of wildlife resources including their habitat for the continued production of goods and services offered by the wildlife for the benefit of mankind.



It can also be defined as the application of business methods and ecological knowledge to manipulate undomesticated flora and fauna resources in a way that ensures their products and services are sustained.



'Wildlife Management' can also be defined as the art and science of making land produce and sustain annual crop of wildlife resources for recreational use.



It can further be defined as the science and art of changing the characteristics and interaction of habitat, wild animal population and man in order to achieve specific human goal by means of wildlife resources.



Meaning and Essentials of Wildlife Management Cont...

The core issue in 'Wildlife Management' is the manipulation or protection of wildlife population(s) to achieve a goal.

In this regard, people must be informed as to what is being done, they must be educated to an understanding of why it is necessary, their opinions must be canvassed and their behaviour may have to be regulated with respect to that goal. However, these are dealt with in other areas of wildlife management studies.

Meanwhile, it is important to choose the right goal and to know enough about the animals and their habitat so as to assure the attainment of the set goal.



Meaning and Essentials of Wildlife Management Cont...

Wildlife management may be either **manipulative** or **custodial**.

Manipulative management does something to a population, either changing its numbers by direct means or influencing numbers by the indirect means of altering food supply, habitat, density of predators, or prevalence of disease.

Manipulative management is appropriate when a population is to be harvested, or when it slides to an unacceptably low density, or when it increases to an unacceptably high level.



Meaning and Essentials of Wildlife Management Cont...

Custodial management on the other hand is preventative or protective. It is aimed at minimizing external influences on the population and its habitat.

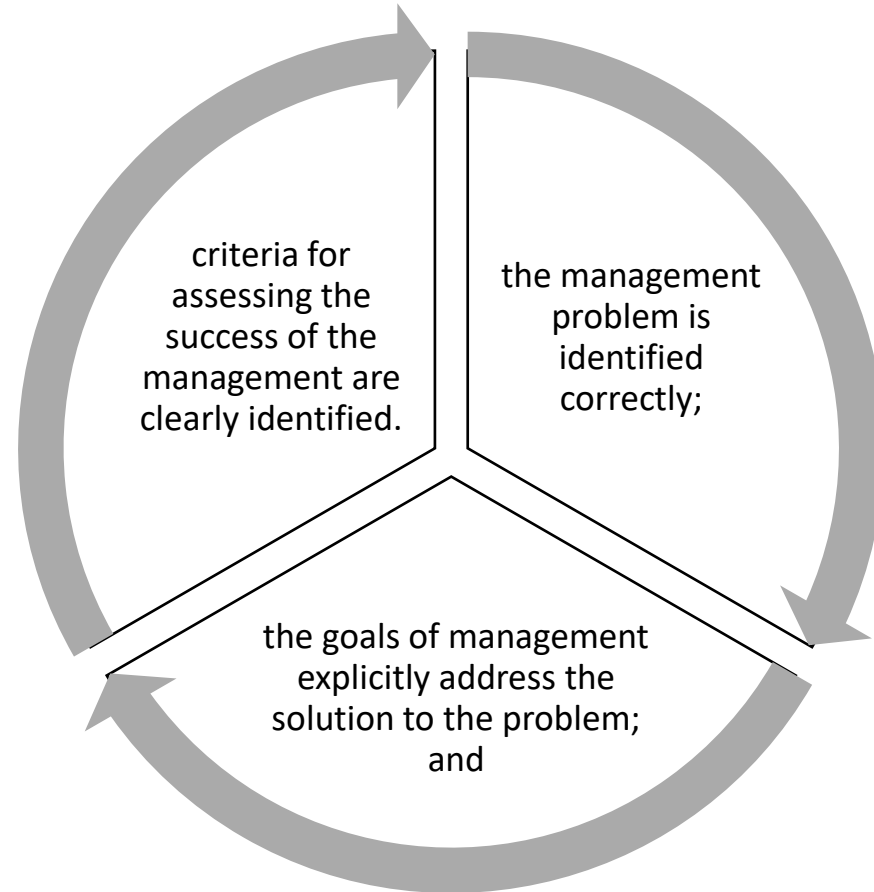
It is not aimed necessarily at stabilizing the system but at allowing free rein to the ecological processes that determine the dynamics of the system.

Such management may be appropriate in a national park where one of the stated goals is to protect ecological processes and it may be appropriate for conservation of a threatened species where the threat is of external origin rather than being intrinsic to the system.



Meaning and Essentials of Wildlife Management Cont...

Regardless of whether manipulative or custodial management is called for, it is vital that:



Meaning and Essentials of Wildlife Management Cont...

A wildlife population may be managed for one of four goals:

- 1 make it increase;
- 2 make it decrease;
- 3 harvest it for a continuing yield (sustained yield)
- 4 leave it alone but keep an eye on it.

The above are the only options available to the manager, and three decisions are needed:

- (i) what is the desired goal?;**
- (ii) which management option is appropriate?; and**
- (iii) by what action is the management option best achieved?**

- The first decision requires a judgment of value, the others technical judgments.



*Thank you for
Listening
&
God Bless!*



Pop Test

1. The modern day definition of wildlife refers to it as
2. Wildlife Ecology is the study of, and of wild organisms in relation to their environment.
3. Wildlife Management is the of wildlife resources including their for the
..... of and offered by the wildlife for the benefit of mankind.
4. The core issue in Wildlife Management is the or of wildlife population(s) to
5. Wildlife Management approach may be or
6. The Wildlife Management approach that is protective is, while one which does something to the population is
7. A wildlife population may be managed for one of four goals. These are:,, and

