



# **Natural Resource Conservation and Development.**

## **Level II**

# **Learning Guide # 48**

**Unit of Competence: Assist Sustainable Wildlife  
Conservation and Development**

**Module Title: Assisting Sustainable Wildlife  
Conservation and Development**

**LG Code: AGR NRC2 M11 1019.**

**TTLM Code: AGR NRC2 TTLM111019 V1.**

**LO.1: Identify and Recognize Wild Species**



<b>Instruction Sheet</b>	<b>Learning Guide #48</b>
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This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- ❖ Identify and Recognize Wild species
- ❖ Establish and Manage Wildlife Conservation Areas
- ❖ Carry out Conservation of Endangered and Endemic species
- ❖ Collect and Record Wildlife Resource Data

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, **you will be able to –**

- Identify and locate resources and equipment
- Identify, select and prepare available processes for wild animals' recognition
- Identify Wild Animals.
- Recognize and name specified Animals based on characteristics
- Brief descriptions of wild animal habits and characteristics.
- Conducting handling, transporting and housing of wild animals.

**Learning Instructions:**

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 3 to 6.
3. Read the information written in the “Information Sheets1, Information Sheets2, Information Sheets3 Information Sheets4, Information Sheets5 and Information Sheets 6”
4. Accomplish the “Self-check1, Self-check2, Self-check3, Self-check 4, Self-check 5 and Self-check 6” **in page -3, 4,7,11,13 and 16 respectively**
5. If you earned a satisfactory evaluation proceed to “Information Sheet 2”.
6. Submit your accomplished Self-check. This will form part of your training portfolio.



Information Sheet-1	Identifying and locating Resources and Equipment
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## 1.1. Identifying and locating Resources and Equipment

### Introduction

#### *What is wild life?*

The term wildlife refers to animals and plants that live and grow in nature, outside the direct control of man. Wildlife includes mammals, birds, fishes' reptiles, amphibians, insects and other lower animals such as invertebrates. Most of the time people associate the term wildlife only with big animals but it also includes smaller animals and plants growing in natural conditions.

**Wildlife** traditionally refers to undomesticated animal species, but has come to include all organisms that grow or live wild in an area without being introduced by humans.

Wildlife can be found in all ecosystems. Deserts, forests, rainforests, plains, grasslands, and other areas, including the most developed urban areas, all have distinct forms of wildlife. While the term in popular culture usually refers to animals that are untouched by human factors, most scientists agree that much wildlife is affected by human activities.

Humans have historically tended to separate civilization from wildlife in a number of ways, including the legal, social, and moral senses. Some animals, however, have adapted to suburban environments. This includes such animals as domesticated cats, dogs, mice, and gerbils. Some religions declare certain animals to be sacred, and in modern times, concern for the natural environment has provoked activists to protest against the exploitation of wildlife for human benefit or entertainment.



## Equipment and resource to be provide

Licenses or Permit/Authorization Packages -permit/authorization packages between those used Department-wide versus those used by specific programs. These packages are the application forms (and associated documents) needed to apply for a permit/authorization with the Department. Each package is made up of instructions for completing the forms, the application forms and an optional checklist for the applicant. The Department-Wide Permit/Authorization Packages area contains forms and information that is used by various programs throughout the Department (e.g., General Information Form (GIF); contacts; maps; etc.). The Program-Specific Permit/Authorization Packages area contains form and information that are specific to a DEP program (e.g., Air Quality; conservation; resource Management; etc.). A number of DEP permits/authorizations are subject to the Department's land use policy, revised on August 19, 2009. The policy lists the affected applications, requirements for applicants, and DEP's review process for these applications.

The Department has expanded its use of general permits to authorize activities under various environmental statutes. General permits streamline the permitting of classes of facilities or activities that are sufficiently similar in design or operation to warrant general requirements or conditions.

## Equipment's

- + Binoculars
- + Data loggers
- + Field survey kit
- + GPS
- + Memory& Batteries
- + Weather Writer
- + Water proof clipboards protect your work in all weathers. A4, A3, A5
- + Notebooks, paper and pens for outdoor use
- + Measuring tape
- + Compasses
- + Map
- + Stop watches and pedometers
- + First Aid
- + Cameras
- + video recorders



- ✚ Protective gloves and clothing, boats, wetsuits and skin-diving gear, and
- ✚ Animal trapping and catching kit.

Other resources may include,

- Human, financial, physical (traps, firearms, ammunition, poisons, fencing materials, veterinary products),
- Land, air and water transport facilities and
- Plant (excavators, front-end loaders), and plant materials.

<b>Self-Check – 1</b>	<b>Written Test</b>
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**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page.

1. Define wild life? (2pts.)
2. List down at least five materials (5pts)
3. List the place where wildlife can be found (3pts)
4. Write some animal spp classified under wild life (3pts)

**Note: Satisfactory rating - 7points**

**Unsatisfactory - below 7 points**

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



<b>Information Sheet-2</b>	<b>Identifying, selecting and preparing Available Processes for Wild Animals recognition</b>
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### 1.2. Identifying, selecting and preparing Available Processes for Wild Animals recognition

Processes available for aid in the recognition of wild animals may include,

- Literature searches
- internet browsing
- personal consultation with experts
- specimen collections
- field guides
- work place notes, and
- use of simple keys.

Wild animals Nomenclature means naming of wild animal. for recognition of wild animals, we use Common names or local name and scientific names required.

<b>Self-Check – 2</b>	<b>Written Test</b>
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**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page.

1. Mention processes available for aid in the recognition of wild animals. (5pts)
- 2.

**Note:** Satisfactory rating - 3 points

Unsatisfactory - below 3 points

**Answer Sheet**

Score = _____
Rating: _____



<b>Information Sheet-3</b>	<b>Identifying Wild Animals.</b>
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### **1.3. Identifying Wild Animals.**

#### **1.3.1. Wild Animal's Behavior.**

Is action performed in response to stimulus

-All observable or otherwise measurable muscular or secretory response in response to change in animal external and internal environment.

Behavior is action that alters the relationship between an organism and its environment.

Behavior may occur as a result of

- an external stimulus (e.g., sight of a predator)
- internal stimulus (e.g., hunger)
- or, more often, a mixture of the two (e.g., mating behavior)

#### **Types of animal's behavior**

- Foraging behavior: feeding, locating, obtaining and consuming of food
- Parental care behavior: ensuring the survival of young (Caring, nourishing and holding)
- Courtship behavior: attracting a mate. It expresses through courtship display, bright feathers, song, vocalization, and head butting and fighting.
- Reproductive behavior: mating and give birth.
- Offensive/defensive behavior: aggression or submission (hiding, fighting, escaping and threatening)
- Territorial behavior: protect the resource for exclusive use. Animals defend their territory through scent marking, bird song, protection of mate (pace /food).
- Social behavior: work to create alliances, help the group. Grooming, babysitting, defense musk or young, playing and play fight.
- Communication behavior: signals between one animal and others animals. Greeting (kissing, sniff, bite), grooming (bonding, alliance cleaning and keeping), vocalization, nonverbal signaling (scenting, looking away, showing teeth, smiling, ear positioning, tail snap etc.)
- Resting behavior: apparent in action (sleeping, sitting lying dawn etc.)



### 1.2.2. HOME RANGE

Much of the activity of animals will center around some favored feeding ground, or a place where it rests or sleeps or perhaps a patch of cover in which it feels secure from enemies. This area, its center of activity (feeding grounds, resting places, and escape) may be quite small, around it will be a somewhat larger area that is visited occasionally. Even this larger area will be of such a size that it could be crossed by the animal in a short time and with little effort.

This area in which an individual animal spends all, or most of, its time is known as its home range.

There are advantages, having home range, in spending as little energy as possible in search of food and in knowing just where to hide if a predator appears, or in having a familiar place to avoid extremes of weather or insect attacks.

Generally:

- Sedentary animals may have only one home range
- Some species normally have several home ranges that are used seasonally
- Seasonally used home ranges do not fulfill year round habitat requirements only fulfill seasonal habitat requirements.

#### **Size of home ranges varies among animals.**

- Generally carnivorous have larger home ranges than do herbivores of the same body size
- Home ranges are often larger for males than for female of the same species.
- Home ranges may be much reduced in some seasons e.g. when demands of reproduction tie animals to nest.
- Home ranges to be smaller in good habitat than in poor habitat because animals do not have to travel as far to fulfill their needs.
- Home ranges to be smaller for high density population because they occupy good habitat and because their social interactions may limit movements.

**Homing** – is the ability to return to home range where displaced from it





**Self-Check – 3**

**Written test**

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page.

1. What is behavior (2pts)
2. List down types of animal's behavior (5pts)
3. What is home range? (3pts)
4. \_\_\_\_\_ is the ability to return to home range where displaced from it. (2pts)

**Note: Satisfactory rating - 6 points**

**Unsatisfactory - below 6 points**

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



<b>Information Sheet-4</b>	<b>Recognizing and naming specified Animals based on characteristics</b>
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#### **1.4. Recognizing and naming specified Animals based on characteristics**

Wildlife resource of Ethiopia:

Ethiopia is one of most biodiverse countries in Africa, with high levels of endemism. The highland regions, although having fewer species than many lowland parts of tropical Africa, have a large number of endemic species, particularly birds, mammals, and amphibians. The eastern low lying parts of the country have some species in common with Somalia, Kenya, Tanzania and Djibouti, notably antelopes. The western and southern parts share their fauna largely with southern Sudan and this area is rich in species.

Accord to the National Conservation Strategy Secretariat (NCSS) 242 species of terrestrial mammals and 845 species of birds have been identified of which 25 species of mammals and 26 species of birds are endemic. Out of 25 endemic mammals 20 occur only in high land, 9 of them have been classified as threatened. Thus Ethiopia has a large number of endemic bird species than any other country in Africa, being approached by Tanzania and Zaire each with 15 (World Conservation Monitoring center, 1991). The endemic avifauna is dominated by highland species with at least 19 being normally found above 1000 meters. There are also 5765 plant species of which 1100 are endemic. Although very little study has yet been done on other groups, 6 reptiles and amphibian species are known to be endemic.



## Some bird species of Ethiopia

- ❖ Watt led Ibis
- ❖ White Collared pigeon
- ❖ Harwood's Francolin
- ❖ Black-winged love bird
- ❖ Spot-breasted plover
- ❖ Banded Barbet
- ❖ Yellow-fronted parrot
- ❖ White-tailed swallow
- ❖ Prince Ruspoil's Tura co
- ❖ White-winged cliff chat
- ❖ Golden-backed Woodpecker
- ❖ Abyssinia Cat bird
- ❖ Abyssinian Long law
- ❖ Yellow-throated seed eater
- ❖ Ruppel's Chat
- ❖ White-billed starling
- ❖ White-backed Black Tit
- ❖ Stresemann's Bush-crow
- ❖ Black headed siiskin
- ❖ Ankober Seed-eater
- ❖ Black headed Forest oriole
- ❖ Erard's lark
- ❖ Decodis lark



- ❖ Thick-billed Raven
- ❖ Blue winged Goose
- ❖ Rouget's Rail

### **Some Mammals of Ethiopia**

- ❖ Semen fox
- ❖ Semen jackal
- ❖ Mountain Nyala
- ❖ Walia Ibex
- ❖ Blick's Grass Rat
- ❖ Gelada Baboon
- ❖ Harrington's Grove
- ❖ Toothed mouse
- ❖ Giant mole rat
- ❖ Lopguromys melanonyx
- ❖ Wild Ass
- ❖ Nikolaus' climbing mouse
- ❖ Meneliks Bush-Buck
- ❖ Starck's Hare
- ❖ Swayne's Hartebeest
- ❖ Patrizii's Bat
- ❖ Scott's Hairy Bat
- ❖ Kerivoula eriophora
- ❖ Morris' Hairy Bat
- ❖ Mahomet's mouse



- ❖ Bailey's shrew
- ❖ White-footed rat
- ❖ Muriculus imberbis
- ❖ Stenocephalemys griseicauda
- ❖ Groove-toothed mouse
- ❖ Lovat's climbing mouse

<b>Self-Check – 4</b>	<b>Written Test</b>
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**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page.

1. Write at least five birds which is found in Ethiopia. (5pts)
2. Write at least five mammals which is found in Ethiopia. (5pts)

**Note:** Satisfactory rating - 5 points

Unsatisfactory - below 5 points

**Answer Sheet**

Score = _____
Rating: _____



<b>Information Sheet-5</b>	<b>Wild Animal habits and characteristics.</b>
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### **1.5. Wild Animal habits and characteristics.**

Identifiable animal's characteristics may include:

-The shape, size, color, texture, hair, brief descriptions of habitat and generally behavior of wild animals

The lion is a well-muscled cat with a long body, large head, and short legs. Size and appearance vary considerably between the sexes. The male's outstanding characteristic is his mane, which varies between different individuals and populations.

It may be entirely lacking; it may fringe the face; or it may be full and shaggy, covering the back of the head, neck, and shoulders and continuing onto the throat and chest to join a fringe along the belly. In some lions the mane and fringe are very dark, almost black, giving the cat a majestic appearance. Manes make males look larger and may serve to intimidate rivals or impress prospective mates. A full-grown male is about 1.8–2.1 meters (6–7 feet) long,

Lions prey on a large variety of animals ranging in size from rodents and baboons to Cape (or African) buffalo and hippopotamuses, but they predominantly hunt medium- to large-sized hoofed animals such as wildebeests, zebras, and antelopes.

Prey preferences vary geographically as well as between neighboring prides. Lions are known to take elephants and giraffes, but only if the individual is young or especially sick. They readily eat any meat they can find, including carrion and fresh kills that they scavenge or forcefully steal from hyenas, cheetahs, or wild dogs. Lionesses living in open savanna do most of the hunting, whereas males typically appropriate their meals from the female's kills. However, male lions are also adept hunters, and in some areas they hunt frequently. Pride males in scrub or wooded habitat spend less time with the females and hunt most of their own meals. Nomadic males must always secure their own food.



**Self-Check – 5**

**Written Test**

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page.

1. List the criteria to identify wild animal habits? (5pts)

**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3 points**

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_



<b>Information Sheet-6</b>	<b>Conducting handling, transporting and housing of wild animals</b>
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## 1.6. Conducting handling, transporting and housing of wild animals

handling wild animal without cause of stressing wild animals and disturbance in accordance with **animal welfare regulations**

Transporting and housing of wild animals comply with **animal ethics guidelines**, wild animal welfare regulations and statutory requirements.

**Animal welfare** refers to a utilitarian attitude towards the well-being of nonhuman animals. It believes the animals can be exploited if the animal suffering and the costs of use is less than the benefits to humans This attitude is also known simply as *welfarism*.

The Animal Welfare Act 2006 makes owners and keepers responsible for ensuring that the welfare needs of their animals are met.

These include the need:

- for a suitable environment (place to live)
- for a suitable diet
- to exhibit normal behavior patterns
- to be housed with, or apart from, other animals (if applicable), and
- to be protected from pain, injury, suffering and disease.

### What is wildlife welfare?

#### Legislative Context

There is substantial welfare legislation for farmed animals and domestic pets but this legislation does not extend to wildlife. The legislation relevant to wildlife focuses on preventing acts of cruelty by making specific deliberate or reckless acts illegal. Wildlife welfare is explicitly mentioned in the Deer (Scotland) Act 1996 (as amended) which requires SNH to 'keep under review...all matters including their welfare'.





## **Wildlife Welfare Characteristics**

Wildlife welfare has two components:

- the way animals function biologically
- society's beliefs of what an animal experiences.

### **1. Welfare from a biological view point**

An animal's welfare state is generally regarded as a consequence of an animal's ability to adapt to environmental challenge. Animals adapt by adjusting their behavior or physiology.

Assessing an animal's welfare status is complex and not well understood for all species. It may require observation of an animal's physiological or behavioral response to the environmental conditions over a period of time. This is in order to take account of short intensive periods of environmental

challenge which may cause stress for the animal at that point but is within the normal ability of the animal to withstand.

### **2. The animal's welfare state – taking account of society's views**

Management decisions need to be based on a well-founded understanding of the biological needs of an animal or group of animals. They also need to have regard to society's views and values.

## **Recommendations for Transporting Wildlife**

- a. Do not feed or offer water to the wild animal unless specifically directed to do so.
- b. Avoid excessive handling of the animal.
- c. Avoid direct eye contact with the animal, as most animals' view eye contact as a challenging or threatening gesture.
- d. Do not take photographs of the animal.
- e. Animals should be contained in a well-ventilated container with no sharp object.
- f. Do not use wire cages to transport birds. Wire cages can cause serious injury and feather damage.
- g. Provide a thick layer of ravel-free non-slip material on the bottom of the transport container, such as a towel, artificial turf or a carpet pad. This provides secure footing for an animal that might experience stress and injury by trying to



stand and maintain balance on a slippery surface.

- h. The lid, door or other opening to the transport container should be secured to prevent the animal from escaping.
- i. Do not allow other animals to approach the transport container
- j. The transport container should be placed securely in the vehicle to prevent excessive movement (i.e. sliding, tipping over) during transport.
- k. Do not transport animals in the trunk of a vehicle or in the uncovered bed of a truck.
- l. Limit exposure to noxious fumes. Do not smoke while transporting an animal in your vehicle.
- m. Control temperature inside your vehicle so the animal does not overheat or become too cold.
- n. Avoid unnecessary delays while transporting animals

<b>Self-Check – 6</b>	<b>Written Test</b>
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**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page.

1. what is wild life welfare? (3pts)
2. state the animal Welfare Act 2006. (3pts)
3. write down wild life welfare characters. (4pts)
4. during transporting wild animal what recommended transportation would you use? (5pts)

**Note:** Satisfactory rating - 8 points

Unsatisfactory - below 8 points

**Answer Sheet**

Score = _____
Rating: _____



## List of Reference Materials

1. ["What is Animal Welfare and why is it important? - The difference between Animal Rights & Animal Welfare"](#). National Animal Interest Alliance.  
Retrieved 2014-06-27.
2. Alastair MacGugan, 07876 478305 [alastair.macgugan@snh.gov.uk](mailto:alastair.macgugan@snh.gov.uk) Jessica Findlay, [Jessica.Findlay@snh.gov.uk](mailto:Jessica.Findlay@snh.gov.uk)
3. Blower, J. (Undated) The Wildlife of Ethiopia. Oryx, 13, 276-283
4. WDNR Call Center (1-888-WDNRINFO / 936-7463)  
Visit: [dnr.wi.gov](http://dnr.wi.gov), keyword "rehab"