

Domain	TOUR GUIDING	Unit ID: 185
Title:	Apply knowledge of local flora in tour guiding operations	
Level: 3		Credits: 7

Purpose

This unit standard specifies the competency required to identify and describe the local flora in tour guiding operations. This includes identifying and describing, with the assistance of literature and identification keys, local trees and shrubs, grasses, succulents, bulbs and herbaceous plants, special plants and alien flora. This unit standard is intended for those who work as tour guides.

Special Notes

1. Entry information:

Prerequisite

- Unit 170 *Follow occupational health and safety in tour guiding operations* or demonstrated equivalent knowledge and skills.

2. To demonstrate competence, at a minimum, evidence is required of identifying and describing, with the assistance of literature and identification keys, local trees and shrubs, grasses, succulents, bulbs and herbaceous plants, special plants and alien flora.
3. Assessment evidence may be collected from a real workplace, or simulated real workplace or an appropriate simulated realistic environment in which tour guiding operations are carried out.

4. Glossary:

Biomes are areas with similar types of vegetation, animal life, soils, geological features and climatic conditions.

5. The 4 biomes in Namibia are:

- Nama Karoo
- Succulent Karoo
- Tree and shrub savannah
 - Acacia tree and shrub savannah
 - Broadleaved tree and shrub savannah
- Namib Desert.

6. Tour guides must comply with the Namibia Tourism Board's Code of Conduct for Tour Guides.

7. Standard reference guides referred to in this unit standard are field guides and the *Tree Atlas of Namibia* (Curtis, B.A. & Mannheimer, C.A. 2005; *Tree Atlas of Namibia*; Windhoek: National Botanical Research Institute).

8. Regulations and legislation relevant to this unit standard include the following:
- Labour Act No 6, 1992
 - Nature Conservation Ordinance 4 of 1975 and 247 of 1977
 - Namibia Tourism Board Act 21 of 2000
 - Forestry Ordinance of 1952
 - Forestry Act No. 72 of 1968
 - CITES I and II
 - Occupational Health and Safety Regulations No.18, 1997 and all subsequent amendments to any of the above.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions that meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Identify and describe local trees and shrubs in tour guiding operations

Range

Trees refer to woody vegetation, usually with a distinct trunk, that may grow taller than 3 metres high in mature stage under ideal circumstances.

Local trees include, but are not limited to, *Acacia erioloba*, *Acacia hebeclada*, *Acacia hereroensis*, *Acacia karoo*, *Acacia mellifera*, *Acacia montis-usti*, *Acacia nebrownii*, *Acacia nigrescens*, *Acacia robynsiana*, *Acacia tortilis*, *Adansonia digitata*, *Albizia anthelmintica*, *Baikiaea plurijuga*, *Berchemia discolor*, *Boscia albitrunca*, *Burkea africana*, *Colophospermum mopane*, *Combretum apiculatum*, *Combretum imberbe*, *Commiphora multijuga*, *Commiphora pyracanthoides*, *Commiphora saxicola*, *Commiphora wildii*, *Cyphostemma currorii*, *Dichrostachys cinerea*, *Diospyros mespiliformis*, *Dombeya rotundifolia*, *Euclea pseudebenus*, *Faidherbia albida*, *Ficus cordata*, *Ficus sycomorus*, *Garcinia livingstonei*, *Guibourtia coleosperma*, *Hyphaene petersiana*, *Ozoroa crassinervia*, *Philenoptera nelsii*, *Philenoptera violacea*, *Maerua schinzii*, *Moringa ovalifolia*, *Pachypodium lealii*, *Pachypodium namaquanum*, *Pappea capensis*, *Parkinsonia africana*, *Peltophorum africanum*, *Phoenix reclinata*, *Pterocarpus angolensis*, *Schinziophyton rautanenii*, *Sclerocarya birrea*, *Sesamothamnus guerichii*, *Spirostachys africana*, *Sterculia africana*, *Sterculia quinqueloba*, *Strychnos cocculoides*, *Tamarix usnioides*, *Terminalia prunioides*, *Terminalia sericea*, *Ziziphus mucronata*.

Shrubs refer to woody vegetation that usually has more than one main stem and normally grows to less than 3 metres high.

Local shrubs include, but are not limited to, *Arthraerua leubnitziae*, *Bauhinia petersiana*, *Boscia foetida*, *Calicorema capitata*, *Catophractes alexandri*, *Grewia flava*, *Grewia flavescens*, *Nymania capensis*, *Phaeoptilum spinosum*, *Rhigozum trichotomum*, *Salsola* spp., *Salvadora persica*, *Sisyndite sparteae*, *Zygophyllum* spp.

For assessment purposes, 20 common species of trees and 10 common shrubs in Namibia are required to be identified and described, including examples from several different biomes as listed in Special Note 5.

Performance Criteria

- 1.1 Trees are described and identified in terms of common and scientific names, shape, roots, leaves, flower and fruit, animals commonly feeding on the tree, human use, construction, fuel and decorative applications and regional distribution.
- 1.2 Shrubs are described and identified in terms of common and scientific names, shape, roots, leaves, flower and fruit, animals commonly feeding on the shrub, human use, construction, fuel and decorative applications and regional distribution.
- 1.3 Field guides are used to aid identification and description of trees and shrubs, using correct terminology, taxonomy and dichotomous keys.
- 1.4 Inquiries of guests regarding trees and shrubs are answered accurately within scope of personal knowledge and authority, or inquiries are referred to alternative sources of information.

Element 2: Identify and describe local grasses and grassland ecology in tour guiding operations

Range

Grasses include all monocotyledonous plants generally grazed by herbivores.

Local grasses include, but are not limited to, *Anhtephora* spp., *Aristida* spp., *Cladoraphis spinosa*, *Enneapogon* spp., *Brachiaria* spp., *Cenchrus* spp., *Centropodia* spp., *Chloris* spp., *Cymbopogon* spp., *Digitaria* spp., *Eragrostis* spp., *Hyparrhenia* spp. (*thatch*), *Panicum* spp., *Pennisetum* spp., *Phragmites australis*, *Schmidtia* spp., *Setaria verticillata* (*sticky grass*), *Sporobolus* spp., *Stipagrostis* spp. .

Veld condition includes soil erosion and its causes and repercussions, as well as sweet and sour veld characteristics.

For assessment purposes, 5 species of common grasses in Namibia are required to be identified and described, including examples from several different biomes as listed in Special Note 5.

Performance Criteria

- 2.1 Grasses are identified in terms of structural components of grass, grazing value, plant succession, common and genus names.
- 2.2 Ecological status of grasses is identified and described, using correct terminology.
- 2.3 Plant succession stages are identified and described.
- 2.4 Ecological status of veld is identified and described, using correct terminology.

- 2.5 Inquiries of guests regarding grasses are answered accurately within scope of personal knowledge and authority, or inquiries are referred to alternative sources of information.

Element 3: Identify and describe local succulents in tour guiding operations

Range

Succulents are plants that store water in structures such as stems, or leaves.

Succulents include, but are not limited to, stem-, leaf-, root and dwarf succulents including *Aloe asperifolia*, *Aloe dichotoma*, *Aloe hereroensis*, *Aloe littoralis*, *Commiphora* spp., *Cyphostemma* spp., *Euphorbia* spp., *Hoodia* spp., *Mesembryanthemum guerichianum*, *Pachypodium* spp., *Moringa ovalifolia*, *Sansevieria* spp., *Zygophyllum* spp..

For assessment purposes, 5 common succulents in Namibia are required to be identified and described, including examples from several different biomes as listed in Special Note 5.

Performance Criteria

- 3.1 Local succulents are identified in terms of shape, root, leaf, flower and fruit, common and scientific names and regional distribution.
- 3.2 Local succulents are described in terms of animals commonly feeding on them, human use, flower, leaf, medicinal use and decorative applications.
- 3.3 Field guides are used to aid identification and description of succulents, using correct terminology, taxonomy and dichotomous keys.
- 3.4 Inquiries of tour members regarding succulents are answered accurately within scope of personal knowledge and authority, or inquiries are referred to alternative sources of information.

Element 4: Identify and describe bulbs and herbaceous plants in tour guiding operations

Range

Herbaceous plants are non-woody plants or plants with underground storage organs that are seen above ground only during the rainy season.

Herbaceous plants to be identified are *Citrullus ecirrhosus*, *Cleome* spp., *Helichrysum* spp., *Sarcocaulon* spp., *Sesame* spp., *Tapinanthus oleifolius*, *Tribulus* spp., *Zygophyllum simplex*.

For assessment purposes, 5 common bulbs and 5 herbaceous plants in Namibia are required to be identified and described, including examples from several different biomes as listed in Special Note 5.

Performance Criteria

- 4.1 Local bulbs and herbaceous plants are identified in terms of shape, colour, texture and size, leaf, flower and fruit, common and scientific names, animals commonly feeding on them and human use.
- 4.2 Bulbs and herbaceous plants are described in terms of human use, flowers, leaves and fruit, medicinal use, decorative applications and regional distribution.
- 4.3 Field guides are used to aid identification and description of bulbs and herbaceous plants, using correct terminology, taxonomy and dichotomous keys.
- 4.4 Inquiries of tour members regarding bulbs and herbaceous plants are answered accurately within scope of personal knowledge and authority, or inquiries are referred to alternative sources of information.

Element 5: Identify and describe flora of special interest in tour guiding operations

Range

Flora of special interest is limited to plants that are endemic, of national importance, rare, protected or have special adaptation features.

Plants of special interest include, but are not limited to, *Acanthosicyos horridus*, *Adenium boehmianum*, *Euphorbia damarana*, *Euphorbia virosa*, *Hoodia* spp., *Myrothamnus flabellifolius* and *Welwitschia mirabilis*.

Other special properties may include physiological adaptations such as "resurrection".

For assessment purposes, 3 species of plants of special interest are required to be identified and described, including examples from several different biomes as listed in Special Note 5.

Performance Criteria

- 5.1 Flora of special interest are identified in terms of shape, trunk, roots, leaves, flower and fruit, common and scientific names and human use.
- 5.2 Flora of special interest are described in terms of animals commonly feeding on them, human use, medicinal use, construction, fuel and decorative applications, regional distribution as well as any other special properties.
- 5.2 Field guides are used to aid identification and description of flora of special interest, using correct terminology, taxonomy and dichotomous keys.
- 5.3 Inquiries of tour members regarding flora of special interest are answered accurately within scope of personal knowledge and authority, or inquiries are referred to alternative sources of information.

Element 6: Identify and describe exotic flora in tour guiding operations

Range

Exotic or alien flora are plants that have been introduced into an areas that are not their natural habitat.

Alien invasive flora are exotic plants that displace indigenous species.

Alien flora includes, but is not limited to, *Datura*, spp., *Nicotiana glauca* (*wild tobacco*), *Pennisetum setaceum* (*fountain grass*), *Prosopis* spp. (from mid-America), *Ricinus communis* (*castor oil*).

Plants which are *alien but not invasive* include the Jacaranda, Bougainvillea, Eucalyptus, Australian Pepper.

For assessment purposes, 5 alien plants countrywide are required to be identified and described.

Performance Criteria

- 6.1 Alien plants are identified and described using correct terminology, taxonomy and dichotomous keys.
- 6.2 Field guides are used to aid identification and description of alien plants.
- 6.3 Invasive flora is identified in terms of shape, trunk, root, leaf, origins.
- 6.4 The impact of invasive plants is identified, described and explained in terms of indigenous plant displacement and water consumption.
- 6.5 Inquiries of tour members regarding alien plants are answered accurately within scope of personal knowledge and authority, or inquiries are referred to alternative sources of information.

Registration Data

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