

Appendix 7. The classification of habitat terms used in Important Bird Areas in the African region.

The primary headings (level 1) used in the African IBA habitats classification are, for the purposes of the global IBA database, standardized between regions. The secondary headings of the classification (level 2) are specific to the African region. For Africa, the level 2 classification given here is largely a simplification of White (1983), except for the wetland types, which are based on a list suggested by Wetlands International. Some departures from White are a consequence of the need to conform to the level 1 classification used in the global IBA database and for the treatment of habitats in North Africa to reflect the classification already adopted by the European IBA programme for those parts of Europe with comparable habitat types.

The following definitions/explanations of habitat types are also mostly based on White (1983) except, again, for those for wetlands for which Wetlands International provided considerable input. Definitions are not given for all terms, some being considered self-explanatory.

FOREST AND WOODLAND

Forest—a continuous stand of trees at least 10 m tall, their crowns interlocking.

Woodland—an open stand of trees at least 8 m tall with a canopy cover of 40% or more. The field layer is usually dominated by grasses.

Lowland forest—mixed moist evergreen and semi-evergreen

Lowland rain forest with the upper canopy usually above 30 m (rather lower in Madagascar). Applicable to most of the forests of the Guinea–Congo Forests biome (A05) and those of the East Malagasy biome (A15). ‘Semi-evergreen’ indicates that some of the canopy species are briefly deciduous but not necessarily at the same time.

Lowland forest—monodominant moist evergreen and semi-evergreen

Lowland rain forest with the upper canopy usually above 30 m. Single-dominant forests occur, in particular, widely in the region peripheral to the Congo basin. Examples include forests dominated by *Gilbertiodendron* in parts of DR Congo, Congo and Cameroon, *Cynometra* in eastern DR Congo and Uganda, and *Brachystegia* in Cameroon and Gabon.

Lowland forest—undifferentiated

Forests which show considerable, abrupt changes in structure and composition over short distances. Most of the forests of East African Coast biome (A09) are of this type.

Lowland forest—dry evergreen**Lowland forest—dry deciduous**

Forests which experience a dry season of several months. Compared with rain forest, the canopy and species diversity are lower and the structure more simple. Occurs locally in the Zambezi biome (A10) and Sudan and Guinea Savanna biome (A04) and more extensively in the West Malagasy biome (A14). In deciduous forest, most trees lose their leaves simultaneously and remain bare for weeks or months.

Lowland forest—mixed swamp

Forest which occurs on seasonally or permanently waterlogged ground.

Lowland forest—monodominant swamp

Forest which occurs on seasonally or permanently waterlogged ground and is dominated by a single species, e.g. *Raphia* palm.

Lowland forest—riparian

Forest which is limited to a more or less narrow strip, fringing permanent or temporary watercourses or standing water.

Mid-altitude forest—transitional

Forests in the altitudinal range 1,100–1,750 m which, floristically, comprise 25–50% montane elements, 75–50% lowland forms plus, often, some endemic species. Of localised distribution, occurring, for example, in parts of the Nigeria–Cameroon highlands (Obudu plateau), the western edge of the Albertine rift, the Eastern Arc forests of Tanzania (e.g. the Usambara Mountains) and the Shire Highlands of Malawi.

Montane forest—mixed

The altitudinal boundary between lowland and montane forest varies with latitude and between localities from c.1,200 m (or lower in Madagascar) to 2,000 m, but often occurs around 1,500–1,800 m. Montane forest is usually similar in structure and physiognomy to lowland rain forest—e.g. upper canopy >30 m, emergents taller, lianes numerous—but differs considerably in species composition.

Montane forest—monodominant

Monodominant montane forest comprises those in which species such as juniper *Juniperus* or *Hagenia* form pure or almost pure stands.

Montane forest—undifferentiated

Differs structurally from mixed montane forest in having a lower canopy, no emergents, few lianes and also in floristic composition; usually, but not always, at higher altitudes than mixed montane forest.

Woodland—transition

Intermediate in structure between forest and woodland.

Woodland—mixed

Woodland in which no one species or genus predominates.

Woodland—monodominant

Woodland in which genera or single species, such as *Brachystegia* (miombo), *Colophospermum* (mopane), *Acacia*, *Combretum* or *Isoberlinia*, form pure or mostly pure stands.

Woodland—riparian

Woodland which is limited to a more or less narrow strip fringing permanent or temporary watercourses or standing water.

Mediterranean forest—broadleaved evergreen

Forests of North Africa, dominated by evergreen oaks (*Quercus*).

Mediterranean forest—broadleaved deciduous

Forests of North Africa, dominated by deciduous oaks (*Quercus*).

Mediterranean forest—native coniferous

Forests of North Africa, dominated by native conifers (*Juniperus*, *Cupressus*, *Pinus*, *Cedrus*, etc.).

SCRUB AND SHRUBLAND

Shrubland—an open or closed stand of shrubs up to 3 m tall.

Scrub—forest

Vegetation intermediate between forest and bushland or thicket, usually 8–10 m tall.

Scrub—woodland

Stunted woodland less than 8 m tall or vegetation intermediate between woodland and bushland.

Shrubland—Cape (fynbos)

The vegetation of the Cape, typically 1–4 m tall sclerophyllous shrubland; includes secondary shrubland formations.

Shrubland—bushy Karoo

Shrubland with small bushy trees and large shrubs.

Shrubland—succulent Karoo

Shrubland dominated by succulents up to 2 m tall.

Shrubland—dwarf Karoo

Shrubland dominated by dwarf shrubs, mostly belonging to the Compositae.

Shrubland—maquis and garrigue

Secondary, forest-derived shrubland of North Africa of very variable height (up to 4 m), structure and composition.

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Shrubland—Mediterranean semi-desert

Succulent *Euphorbia* shrubland and other semi-desert, dwarf shrublands.

Shrubland—montane

Mixed short and dwarf shrublands at high altitude.

Shrubland—Mediterranean montane

North African dwarf shrubland, dominated by dense, cushion-shaped, spinous shrubs, at elevations above c.2,000 m.

WOODED GRASSLAND, BUSHLAND AND THICKET

Wooded grassland—land covered with grasses and other herbs, with woody plants covering between 10 and 40% of the ground.

Bushland—an open stand of bushes usually between 3 and 8 m tall, with a canopy cover of 40% or more.

Thicket—closed stand of bushes and climbers, usually between 3 and 8 m tall.

Wooded grassland

Land covered with grasses and other herbs, with woody plants covering between 10 and 40% of the ground. The woody plants may be trees, bushes, palms or shrubs. These vegetation types are found in much of the southern Sahel, wetter parts of the Kalahari, parts of south-eastern Kenya and the transition between the Guinea-Congo Forests biome (A05) and Zambezian biome (A10) in DR Congo, Congo and Angola.

Bushland and thicket—evergreen

Evergreen (and semi-evergreen) bushland and thicket occurs, in particular, in the Somali-Masai biome (A08) and East African Coast biome (A09). Semi-evergreen indicates that some species are briefly deciduous, but not necessarily at the same time. Included here also is littoral thicket on rocky and sandy shores.

Bushland and thicket—deciduous

Bushland and thicket in which most constituent species lose their leaves simultaneously and remain bare for weeks or months. Occurs extensively in the Somali-Masai biome (A08) and West Malagasy biome (A14). This category also includes Itigi thicket of the Zambezian biome (A10) in Tanzania and related types, as well as termite mound thicket which occurs usually as a mosaic with edaphic grassland.

Bushland and thicket—montane

This occurs above the forest zone and is often ericaceous in composition. Also included here is elfin thicket—dense, 4–8 m tall thicket, clothed in epiphytes down to ground level, that occurs on some lower mountain summits.

Bushland and thicket—Mediterranean

Includes principally *Olea-Pistacia* thicket of North Africa, usually seen as 4–5 m high coppice and as small, heavily browsed bushes.

Bamboo—montane

Pure, continuous stands of *Arundinaria* bamboo occur locally on mountains of eastern Africa above 1,500 m. These can vary from impenetrable thickets only 4 m tall to much more open stands up to 15 m in height.

GRASSLAND

Land covered with grasses and other herbs, either without woody plants or the latter not covering more than 10% of the ground.

Grassland—semi-desert

Open grasslands in areas where the rainfall regime prevents the widespread growth of woody plants. The grasses are often predominantly annuals interspersed with clumped perennials.

Grassland—edaphic, dry

Grasslands growing on certain volcanic soils (e.g. Serengeti), on lateritic crusts in West Africa and ones naturally contaminated with heavy metals (DR Congo).

Grassland—edaphic, wet

Grasslands associated with seasonally or permanently waterlogged soils—conditions which prevent the growth of woody plants. Includes dambos, vleis and other seasonally waterlogged depressions as well as floodplains dominated by grasses.

Grassland—secondary

Derived lowland grasslands that follow cultivation or fire.

Grassland—highveld

Climatic climax grassland found at 1,200–2,200 m on the high plateaux of South Africa.

Grassland—montane

Grasslands, mostly secondary, of high altitude. Includes both grasslands of the forest belt, which in composition and overall appearance resemble those of the lowlands, and those of the ericaceous belt and above which are distinct in both composition and physiognomy.

DESERT

Arid landscapes with a sparse plant cover, except in depressions where water accumulates. The sandy, stony or rocky substrate contributes more to the appearance of the landscape than does the vegetation.

Absolute desert

Desert which receives under 20 mm rain per year and is episodic such that many consecutive years may be completely dry.

Coastal desert

Desert adjacent to the coast where rainfall is low but mists and fog are frequent or where highland summits intercept cloud moisture as condensation. In consequence, the vegetation cover is denser and more varied than in comparable habitat remote from the coast.

Desert dunes

Includes shifting sand-dunes, devoid of vegetation and stable dunes with perennial vegetation.

Stone desert

Stone deserts, known as hamadas in the Sahara, that are stone pavements, usually devoid of vegetation except in crevices and places where water can accumulate.

Gravel and sand plains

Desert plains that are composed of gravel, known as regs in the Sahara, or sand often overlying compacted powdery alluvium.

River beds

Desert and semi-desert valleys, known as wadis in the Sahara, which are usually dry at the surface except after rainfall. May support trees and large bushes.

Saharo-montane vegetation

The vegetation above c.1,800 m on the mountains of Sahara differs distinctly from that at lower altitudes. This is a consequence of the higher rainfall at these altitudes compared with surrounding lowlands. The vegetation comprises woody species associated with wadis, perennial grasses and dwarf shrubland.

Oases

Places where water of low salt content issues at springs. The original woody vegetation of oases has been almost completely replaced by date palms.

WETLAND

Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and which may incorporate riparian and coastal zones adjacent to the wetlands, and islands.

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Sand dunes and beaches—riverine

Seasonally or permanently exposed sand banks and bars within and beside river courses.

Shingle and stony beaches—riverine

Seasonally or permanently exposed stony beaches within and beside river courses.

Coastal lagoons

Coastal lakes or sea inlets, either freshwater, saline or of variable salinity and often formed by rivers obstructed at the coast by sand dune systems or by the natural formation of spits and bars.

Rivers and streams

All rivers and streams.

Estuarine waters

Permanent waters of estuaries and estuarine waters of coastal deltas. Includes river channels below the tidal limit, both the water and the channel bed.

Intertidal mud, sand and salt flats

Mostly unvegetated sands, muds and saltings, submerged for part of every tide.

Riverine flood-plains

Seasonally inundated land resulting from the regular overflow of rivers, which have a seasonal rainfall catchment area, into the surrounding plains.

Freshwater lakes and pools

Permanent or semi-permanent lakes, ponds and pools of natural origin, containing non-saline water.

Saline lakes

Standing saline and alkaline waters, usually occurring on base-rich volcanic soils, including volcanic crater lakes.

Salt-pans

Alkaline flats that occur either in arid or semi-arid regions where salt accumulates as a result of water evaporating from depressions without drainage (e.g. the sebkhas and chotts of the Sahara) or locally in wetter regions as a consequence of springs bringing soluble salts to the surface from salt-containing strata. Halophytic vegetation may or may not be present around the pan margins.

Saltmarshes

Includes both coastal plant communities that are submerged by high tides at some stage of the annual tide cycle and stands of continental halophytic vegetation growing on alkaline soils.

Montane bogs, swamps and mires

Areas of impeded drainage at high altitude, often with wet peaty substrates, supporting a vegetation in which sedges, mosses and low shrubs predominate.

Permanent herbaceous swamps and bogs

Swamps and bogs, at low and medium altitude, occurring in permanently waterlogged or flooded areas. They are often highly productive and dominated by such plant species as *Papyrus*, *Phragmites*, *Typha*, *Miscanthus* and *Loudetia*. Also includes bogs and marshes supporting less rank vegetation in which Cyperaceae and ferns (*Selaginella* and *Thelypteris*) often predominate.

Mangroves

Mangrove forests of river deltas, coastal lagoons and tidal river banks.

Geothermal springs

Permanent upwellings of geothermal origin.

Ephemeral pools and wetlands

Areas which, at extended intervals, hold standing freshwater but usually only for brief periods, depending upon irregular rainfall pattern and flooding regime.

Artificial wetlands

Wetlands that result from a variety of human activities, including reservoirs, dams and barrages; farm and fish ponds; salt-exploitation areas; excavations such as gravel-pits and mining pools; wastewater treatment areas such as sewage farms and oxidation basins; irrigated areas and irrigation channels including rice-fields, canals and ditches; seasonally flooded arable land.

MARINE AREAS

Open sea

Oceanic and offshore continental shelf waters.

Shallow marine waters

Includes inshore waters, small islets, offshore sand bars and mud banks.

Sea inlets

Bays and narrow channels, etc. but excluding estuaries.

Sand dunes and beaches—coastal

Sand-covered shore lines and onshore areas of sand, created by wind action and colonised by maritime vegetation.

Shingle and stony beaches—coastal

Beaches covered by small stones, up to about 10 cm diameter.

Sea cliffs and rocky shores

Rock exposures adjacent to the sea or separated from it by a narrow shoreline. Includes low rocky shores.

Rock stacks and islets

Small rocky islands in the sea or other large water-bodies.

Coral reefs and keys

ROCKY AREAS

Caves

Inselbergs, kopjes and inland cliffs

Isolated, often sheer-sided hills and rocky outcrops rising from a plain; cliffs and rock-faces, etc.

Scree and boulders

Unvegetated or sparsely vegetated and frequently unstable areas of stones, boulders or rubble on steep slopes, produced by erosion in mountainous terrain.

ARTIFICIAL LANDSCAPES

Arable land

Cultivated fields of subsistence or commercial agriculture, supporting annually or seasonally harvested plants, often with borders of natural or semi-natural vegetation between fields. Includes rice paddies.

Perennial crops, orchards and groves

Includes relatively small-scale, traditionally or non-intensively managed crops such as olive groves and fruit trees.

Urban parks and gardens

Usually varied formations, created for recreational use. The vegetation, usually composed mainly of introduced species or cultivars, can nevertheless include many native plants and can support a varied fauna when not intensively managed. The heterogeneity of the habitat can engender a high faunal diversity with, however, a preponderance of common species.

Other urban and industrial areas

Areas used for human occupation and industrial activities.

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Improved pasture land and wooded farmland

Intensively managed, often improved, grazing and ranch land, with or without large shade trees.

Forestry and agro-industrial plantations

Includes forestry involving indigenous species as well as exotics, where the species are grown as single-age monocultures. Includes also large-scale, intensively managed, often mechanised farming such as sugar and sisal estates, rubber, oil-palm and coconut plantations, etc.

Farmbush, fallow and ruderal land

Includes young, often almost impenetrable regrowth following abandonment of cultivation in forest regions, other fallows, roadsides and similar interstitial spaces on abandoned land.

INTRODUCED/EXOTIC VEGETATION

Includes only non-cultivated species or those that have escaped from cultivation.

Reference

WHITE, F. (1983) *The vegetation of Africa: a descriptive memoir to accompany the UNESCO/AETFAT/UNSO vegetation map of Africa*. Paris: United Nations Educational Scientific and Cultural Organisation.