AUSTRALIA

NAME  Walpole-Nornalup National Park

TYPE  NP

BIOTIC PROVINCE  6.5.4

LEGAL PROTECTION  Not total since the Parks and Reserves Act 1895-1968 is subject to the Mining Act 1972.

DATE ESTABLISHED  22 March 1957 by Executive Council

GEOGRAPHICAL LOCATION  On the south coast, 130 km west of Albany: S 35°; E 116°35'-116°39'

ALTITUDE  Sea level to not more than c. 150 metres (estimated)

AREA  18,027 ha

LAND TENURE  Class "A" reserve, Crown land

PHYSICAL FEATURES  Rugged coastline scenery. Great natural beauty, particularly where the heavy timber of the hills comes down almost to the water's edge as it does along the shores of Nornalup and Walpole inlets and the Frankland river.

VEGETATION  Forest country with tall karri Eucalyptus diversicolor, E. jacksoni and E. guilfoylei; high forest, low forest and open forest with Eucalyptus marginata, E. calophylla and Agonis flexuosa; low open woodland with E. rudis and Melaleuca spp.; closed scrub with Agonis Flexuosa and open heath with Acacia decipiens; and closed sedgeland with Evandra aristata and Anarthria prolifera. Haloragis racemosa is only known from the national park.

NOTEWORTHY FAUNA  Typical of the karri country; the more common animals include the short-nosed bandicoot or quenda Thylacis (Isooden) obesulus and grey kangaroo Macropus canguru. This is the only area in Western Australia where the frog Crinea laevis (normally found in the east of the Continent) has been found.

ZONING  I-A, I-B, 95% conservation, 5% development

DISTURBANCES OR DEFICIENCIES  Unauthorised building or holiday cottages, reported in the past, has presumably been brought under control.

TOURISM  One of the most popular tourist resorts on the south coast. Camping and caravanning park operated by the Board at Coalmine Beach, Nornalup inlet.

SCIENTIFIC RESEARCH  No information

SPECIAL SCIENTIFIC FACILITIES  No information

PRINCIPAL REFERENCE MATERIAL  None listed

STAFF  2 resident rangers

BUDGET  AUS$ 20,000 (US$ 26,212)

LOCAL PARK ADMINISTRATION  National Parks Board of W.A., Hackett Drive, Crawley, W.A. 6009, Australia.

WDNP  IUCN © 1975  8(1)F  Code: AUS.4.5
NAME: Mount Field National Park

TYPE: NP

LEGAL PROTECTION: Total

DATE ESTABLISHED: 29 August 1916

GEOGRAPHICAL LOCATION: 70 km north-west of Hobart, Tasmania: S 42°35'-42°45'; E 146°30'-146°42'

ALTITUDE: 168-1436 metres

AREA: 16,212 ha

LAND TENURE: State Reserve

PHYSICAL FEATURES: A dolerite plateau overlying Permian mudstones and Tertiary sandstones. In the west and south there is some Ordovician limestone and at Mount Bridges a small outcrop of Tertiary basalt. The landscape is dominated by glacial features including cirques, arête ridges, erratics and moraine-dammed lakes. The western side of Mount Field features some spectacular dolerite columns. Rainfall is 1500-1750 mm.

VEGETATION: Varying from tall closed lowland forest with Australian myrtle tree *Nothofagus cunninghami* to eucalyptus forests with *Eucalyptus delegatensis*, *E. regnans* and four other main species which occupy about 20% of the area. A small area of coniferous forest of King William pine *Athrotaxis selaginoides* and *A. cupressoides*. *Nothofagus gunnii* dominates the alpine and subalpine forests. Subalpine and alpine heaths with Proteaceae and Epacridaceae such as *Cyathodes* spp. and *Richea* spp., (including one endemic *R. pandanifolia*). Cushion plants *Abrotanella fosterioides*, *Pterygopappus lawrencei* and *Donatia novaezelandiae* occur in the alpine areas.

NOTEWORTHY FAUNA: Both monotremes, the echidna *Tachyglossus aculeatus* and platypus *Ornithorhynchus anatinus* are relatively common. Common marsupials include red-necked or Bennett's wallaby *Protemnodon rufogrisea*, rufous-bellied pademelon *Thylogale billardierii*, long-nosed rat *Potorous tridactylus apicalis*, brush-tailed possum *Trichosurus vulpecula*, wombat *Vombatus ursinus*, ring-tailed phalanger *Pseudocheirus peregrinus*, short-nosed bandicoot *Thylacius opossum*, barred bandicoot *Perameles gunni* and spotted-tailed and eastern dasyures or native cats *Dasyurus maculatus* and *Dasyurus viverrinus*. All three Tasmanian marsupial mice *Antechinus minimus*, *A. swainsoni* and *Sminthopsis leucopus* have been identified in the area, also the Tasmanian devil *Sarcophilus harrisii*. Three species of native rat occur: the velvet-furred rat *Rattus lutreolus*, long-tailed rat *Pseudomys higginsii* and the broad-toothed rat *Mastacomys fuscus*.

ZONING: Awaiting management plan

DISTURBANCES OR DEFICIENCIES: In 1966, regeneration fires from neighbouring pulp and paper company's forests escaped into the park, severely damaging much of the alpine flora. Sport-fishing is permitted.

TOURISM: A popular wintersports area with facilities such as ski-tows and lodges. One chalet with catering facilities; caravan and picnic area.

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Code: AUS(1).4.11
SCIENTIFIC RESEARCH  Projects on alpine flora and altitudinal vegetation successions undertaken by the Botany Department, University of Tasmania.

SPECIAL SCIENTIFIC FACILITIES  None


STAFF  Senior ranger, ranger, 2 assistant rangers, 2 park assistants and secretary: total 7.

BUDGET  State Government: the 1971 figure was quoted as Aust.$ 31,000

LOCAL PARK ADMINISTRATION  Senior Ranger, Mount Field National Park, Tasmania 7456, Australia.
Place: Ben Lomond National Park  

**Name:** Ben Lomond National Park  

**Type:** NP  

**Biotic Province:** 6.5.5  

**Legal Protection:** Total  

**Date Established:** 23 July 1947  

**Geographical Location:** North-eastern Tasmania near coast: S 41°30'-41°40'; E 147°35'-147°45'  

**Altitude:** 500-1572 metres  

**Area:** 16,032 ha  

**Land Tenure:** State Reserve  

**Physical Features:** The highest plateau of the north-east massif, 17 km long, 8 km wide, a dolerite sill bounded on all sides by steep scarps with adjacent talus slopes of blocks and boulders. The plateau drains towards the centre to form the headwaters of the Nile River, which flows westwards through the spectacular Speke gorge. Block streams of large boulders form a major element in the landscape. Rainfall is 1250-1500 mm annually.  

**Vegetation:** Approximately 25% forest and woodland dominated by Eucalyptus delegatensis, with both sclerophyll and rain forest understorey. Also present is Nothofagus cunninghamii-Atherosperma moschatum closed forest. Alpine scrubland occupies 50%, with Proteaceae and Myrtaceae species dominating for example a Telopea truncata-Lomatia polyomorpha subalpine closed scrub association, Orites acicularis-O. revoluta closed heath, and Persoonia gunnii one of the more striking species among the Proteaceae and Leptospermum humifusum, Baeckea and Callistemon among the Myrtaceae. Larger native conifers are not present. Principal grassland/herbfield species are Poa labillardieri and Astelia alpina. A newly recorded species for Tasmania is Pygmaea ciliata var. fiordensis, a cushion plant con-specific with a New Zealand Scrophulariaceous species.  

**Noteworthy Fauna:** Little information available but Bennett’s wallaby Protemnodon rufogrisea is common on the plateau, as is the wombat Vombatus ursinus. The wet gullies and thick undergrowth are the home of the rufous-bellied pademelon Thylogale billardierii and the brush-tailed possum Trichosurus vulpecula is common on the lower slopes. Most of the other Tasmanian mammals may well occur. Bird life is limited by the rather exposed and uniform habitat but includes the wedge-tailed eagle Aquila audax, black currawong Strepera fuliginosa, little raven Corvus mellori and the pipit Anthus australis.  

**Zoning:** Awaiting master plan  

**Disturbances or Deficiencies:** Some illegal logging on a small scale where logging areas occur near the park boundary.  

**Tourism:** The most important snow-field area in northern Tasmania. Access road subject to landslides. One public shelter hut and private and club ski lodges. Only 50 km from Launceston, but few visitors in summer.  

**Scientific Research:** None
SPECIAL SCIENTIFIC FACILITIES  None

PRINCIPAL REFERENCE MATERIAL

STAFF  Ranger

BUDGET  State Government: quoted as Aust.$ 3000 in 1971

LOCAL PARK ADMINISTRATION  None
AUSTRALIA

NAME Ku-ring-gai Chase National Park

TYPE NP

BIOTIC PROVINCE 6.5.1

LEGAL PROTECTION Total


GEOGRAPHICAL LOCATION 24 km north of Sydney: S 33°04'-33°42'; E 151°07'-151°19'

ALTITUDE Sea level to 221 metres, mean 90 metres

AREA 14,614 ha

LAND TENURE Crown land

PHYSICAL FEATURES Horizontal beds of massive quartzose Triassic sandstones with a deeply dissected plateau level. Quaternary estuarine deposits on the margins of the park. Poor sandy soils, but shallow light sandy loams and brown forest soils in gullies. Temperate coast climatic zone with pronounced maritime effect from the nearby estuary of the Hawksbury river. Average daily mean temperature 17.6°C average mean monthly rainfall 114 mm. Different areas show either rain-shadow or high precipitation depending on aspect.

VEGETATION Gullies with sub-tropical rainforest and wet sclerophyll forest; dry sclerophyll forest on drier ridges and slopes (where soil is deeper) with Eucalyptus maculata and E. paniculata. Dry heath with Sprengelia sp., and sedges, bog areas with Gymnoschoenus sphaerocephalus and mallee with E. luehmannia and E. obtusifolia on the dry plateaux. Open mangrove with Avicennia marina var. australis along estuary.

NOTEWORTHY FAUNA Echidna Tachyglossus aculeatus and platypus Ornithorhynchus anatinus, lyre-bird Menura superba, pigeons including the wonga Leucosarcia melanoleuca and one or more species of bower-bird still occur despite the close proximity of Sydney.

ZONING None reported

DISTURBANCES OR DEFICIENCIES Intensive use of visitor facilities, public utility throughways and illegal rubbish dumping. Sport fishing.

TOURISM Park headquarters and Visitor Centre, regional ranger stations, concessions on three water front sites (water sports) and other visitor attractions such as a small 'menagerie'.

SCIENTIFIC RESEARCH No information

SPECIAL SCIENTIFIC FACILITIES Presumably none

PRINCIPAL REFERENCE MATERIAL Numerous publications on flora, fauna, prehistory and geology as well as National Parks and Wildlife Service tourist information brochures.
STAFF  22 units including 12 rangers (c. 1970)

BUDGET  Recorded as of the order of US$ 112,000 (c. 1970)

LOCAL PARK ADMINISTRATION
**NAME**  Barrington Tops National Park

**TYPE**  NP  **BIOTIC PROVINCE**  6.5.1

**LEGAL PROTECTION**  Total

**DATE ESTABLISHED**  1969

**GEOGRAPHICAL LOCATION**  Eastern New South Wales: S 31°58'-32°07'; E 151°23'-151°40'

**ALTITUDE**  426-1580 metres, mean 1221 metres

**AREA**  14,005 ha

**LAND TENURE**  Crown land

**PHYSICAL FEATURES**  Extensive grandiorite plateau with Carboniferous sediments exposed around the plateau margins and as spurs extending from the plateau. Resistant Tertiary basalt caps both the plateau and higher spurs. The main streams are the Barrington, Gloucester and Williams rivers. The plateau has high moor peats and alpine humus soils with leached acid soils immediately below basalt cappings. Lower slopes have red-brown podsols and brown earths. Skeletal soils occur on ridges, particularly on sedimentary rocks. Sub-tropical highland climate with much altitudinal range and rainshadow on western areas.

**VEGETATION**  Sub-alpine grasslands on plateau tops, also sub-alpine woodland with Eucalyptus paucifolia. Cool temperate rainforest with Nothofagus moorei and warm temperate rainforest with Doryphora, Ceratopetalum and Callitris. Wet sclerophyll forest with Eucalyptus fastigata, E. viminalis, E. obliqua, E. saligna, R. resinifera, E. acmenoides and others.

**NOTEWORTHY FAUNA**  Wide spectrum of animal habitats, the fauna includes the following: mammals—echidna Tachyglossus aculeatus, short-eared brush-tailed phalanger or possum Trichosurus caninus, common wombat Vombatus hirsutus, grey kangaroo Macropus canguro and dingo Canis dingo; birds—brush turkey Alectura lathami, various pigeons, lyre-bird Menura superba, green catbird Ailuroedus crassirostris and bower-birds.

**ZONING**  None reported

**DISTURBANCES OR DEFICIENCIES**  Illegal grazing of domestic stock, timber poaching, fire, fauna poaching and infestation with English broom.

**TOURISM**  Poor access will be improved with road construction in adjoining areas. Guest house, privately owned, outside the southern boundary of the park.

**SCIENTIFIC RESEARCH**  No information

**SPECIAL SCIENTIFIC FACILITIES**  Presumably none


WDNP  IUCN © 1975  8(1)F  Code: AUS.4.21

STAFF No information
BUDGET No information
LOCAL PARK ADMINISTRATION
NAME: Mount Buffalo National Park

TYPE: NP

BIOTIC PROVINCE: 6.10.1

LEGAL PROTECTION: Total

DATE ESTABLISHED: 1898, initial reservation under the Lands Act; 1956, inaugurated as a National Park.

GEOGRAPHICAL LOCATION: North-eastern Victoria, 322 km from Melbourne: S 36°41' -36°48'; E 146°43'-146°50'

ALTITUDE: 275-1693 metres

AREA: 11,040 ha

LAND TENURE: Entirely public ownership

PHYSICAL FEATURES: Large isolated granite batholith in the mountainous north-eastern part of the State. A 'relic' mountain surrounded by Ordovician sediments to c. 1000 m, connected on southern side by a col to the Great Dividing Range. The granite forms an extremely steep-sided plateau with weathered tor features. Steep streams on northern and western flanks fall to the Ovens river and on the south to the Buffalo river. The many streams swell in September with melting snow. Plateau soils are alpine humus, acid brown earth and lithosols. Modified Mediterranean climate with 3 months' snow, average temperature 8.2°C, rainfall 1929 mm.

VEGETATION: 396 species of native plants recorded. Sclerophyll forest with alpine ash Eucalyptus delegatensis, narrow-leaved peppermint E. radiata, candlebark gum E. rubida occupies 20-40%, woodland with snow gum E. paucifolia a further 20-40%. Remaining areas are occupied by dry heath with Leptospermum spp., Callistemon spp., Calthrphe x spp., and others and by grasslands with snow grass Poa australis and sedge Carex gaudichaudiana. A limited area of bog has Sphagnum cristatum, Richea continentis and Epacris paludos. Restricted species include mountain plum pine Podocarpus lawrencei, monkey mint Prostanthera walteri and Eucalyptus mitchelliana.

NOTEWORTHY FAUNA: Common and characteristic mammals include marsupial mice Antechinus spp., the common wombat Vombatus hirsutus and the black-tailed wallaby Proteusmn bicolor. 131 bird species have been recorded the most common being the pied currawong Strepera graculina and superb lyre-bird Menura superba. The bogong moth Agrotis infusa is also characteristic.

ZONING: Not yet zoned

DISTURBANCES OR DEFICIENCIES: Lake Catani, an artificial lake on the plateau and a water reservoir is much used for watersports as are the slopes for wintersports, but their impact has not been assessed.

TOURISM: 80,000 visitors in 1972. Overnight accommodation for 160 at the Railways chalet which, with its grounds, occupies 5 ha. Campsites, private ski lodge. All year round resort.

SCIENTIFIC RESEARCH: None

SPECIAL SCIENTIFIC FACILITIES: None

WDNP: IUCN © 1975 8(1)F

Code: AUS.4.30
PRINCIPAL REFERENCE MATERIAL


REICHL, P. (no date). Mt. Buffalo-A study of the Mountain. Leaflets, information sheets and maps are distributed by the National Parks Service.

STAFF 4 units

BUDGET AUS$ 35,000 (US$ 45,872 at 31.12.74)

LOCAL PARK ADMINISTRATION A Committee of Management, appointed by the Minister for Conservation, controls the day-to-day management under the general supervision of the National Parks Service.
NAME Freycinet National Park

TYPE NP

Biotic Province 6.5.5

Legal Protection Total

Date Established 29 August 1916

Geographical Location East coast of Tasmania: S 42°10'-42°20'; E 148°15'-148°20'

Altitude Sea level to 620 metres

Area 10,981 ha

Land Tenure State Reserve

Physical Features Two-thirds of the park is situated in a peninsula dominated by the Devonian red granite mountains of the Hazards, Mount Graham and Mount Freycinet; Schouten Island, one km south of the tip of the peninsula, dominated by the geologically similar Mount Storey, accounts for the remaining one-third. A north-south fault line can be traced from Cocks beach through the centre of Schouten Island: east of the fault is granite and west of it is Jurassic dolerite, with some Triassic sediments outcropping on the west coast of Schouten. Rainfall is 500-750 mm annually.

Vegetation About 60% of the peninsula is covered by dry sclerophyll eucalyptus forest, with blue gum Eucalyptus globulus, and E. obliqua dominant and E. viminalis the main subdominant species. Coniferous forest occupies 6% and is composed solely of Oyster Bay or cypress pine Callitris robusta tasmanica. Another type of sclerophyll forest dominated by she-oak Casuarina stricta occupies 7%, while scrub and heath account for 18%, Myrtaceae species being most prevalent in the scrubland, including Leptospermum scoparium, Melaleuca sp. and Kunzea ambigua. The heathland supports a wide variety of plants such as Epsacis and Leucopogon species. Schouten Island differs mainly in having two additional Eucalyptus species, Eucalyptus pulchella and E. temuiramis, and more of such species as Casuarina subercoas and monilifera, Hakea rostrata and Thryptomene microcut. An alliance of Correa alba and Helychrysum reticulatum occurs on the coastal cliffs and in the nearby one-fifth of the island which is lithosphere, Kunzea ambigua is most successful in finding a foothold in the crevices of the granite.

Noteworthy Fauna Mammals are fairly typical of the dry sclerophyll forests of eastern Tasmania: echidna Tachyglossus aculeatus, Bennett's wallaby Protemnomodon rufogrisea, rufous-bellied pademelon Thylagale billiardsinii, brush-tailed possum Trichosurus vulpecula are all common. Less so are ring-tailed phalanger Pseudocheirus peregrinus, wombat Vombatus ursinus, short-nosed bandicoot Thyacis obesulus and barred bandicoot Perameles gunni (the two last to be seen occasionally in more open areas), and the 'native cats' or dasyures Dasyurus maculatus and Dasyurus viverrinus. The beaver rat Hydromys chrysogaster is abundant along the rocky shores. Twelve forester kangaroo Macropus rufus giganteus were released in the park in July 1972. Practically all Tasmanian birds, except those of rain forest and alpine areas, are present.

Zoning Awaiting management plan

WDNP IUCN © 1977 (1)F Code: AUS(1).4.31
DISTURBANCES OR DEFICIENCIES  Two areas where granite has been quarried and an area of holiday homes have been excluded from the park. Sport-fishing permitted.

TOURISM  A popular tourist area adjoins the park. Camping and caravan grounds, a guest house and a youth hostel are available in the park. A number of trails have been signposted for walkers. Fishing and boating are principal attractions of this park.

SCIENTIFIC RESEARCH  None

SPECIAL SCIENTIFIC FACILITIES  None


STAFF  A ranger, an assistant and a receptionist

BUDGET  State Government: quoted as US$ 4300 in 1971

LOCAL PARK ADMINISTRATION  The Ranger, Freycinet National Park, Coles Bay, Tasmania 7215, Australia.
AUSTRALIA

NAME  Yalgorup National Park

TYPE  NP

Biotic Province  6.5.4

LEGAL PROTECTION  Not total since the Parks and Reserves Act 1895-1968 is subject to the Mining Act 1972.

DATE ESTABLISHED  26 January 1968 by Executive Council

GEOGRAPHICAL LOCATION  South of Mandurah township in the south-west: S 32°52'; E 115°42'

ALTITUDE  No information but presumably sea level to not more than 150 metres

AREA  10,482 ha

LAND TENURE  Class "A" reserve, Crown land

PHYSICAL FEATURES  Reserve of historic interest with old buildings remaining from the early days of the colony. Tuart forest country within easy access. Includes Lake Clifton, 19 km long and 1.6 km wide, which has practically fresh water and is near the old coast road, and Lake Preston which is 27 km long by 1.6 km wide and is very salty.

VEGETATION  Woodland with Eucalyptus gomphocephala, low closed forest with E. rudis and Melaleuca spp., closed scrub with Acacia rostellifera, A. cyclops and A. cochlearis, mixed coastal heath of Leguminosae and Myrtaceae and open heath, which is similar but has an admixture of Proteaceae (on limestone areas). Coastal vegetation with dune and swamp communities.

NOTEWORTHY FAUNA  Great diversity of birdlife with many waterfowl and black swans Cygnus atratus.

ZONING  I-A, I-B, 95% conservation, 5% development

DISTURBANCES OR DEFICIENCIES  None reported

TOURISM  Tourist potential

SCIENTIFIC RESEARCH  No information

SPECIAL SCIENTIFIC FACILITIES  No information

PRINCIPAL REFERENCE MATERIAL  None listed

STAFF  1 ranger

BUDGET  AUS$ 20,000 (US$ 26,212)

LOCAL PARK ADMINISTRATION  National Parks Board of W.A., Hackett Drive, Crawley W.A. 6009, Australia.
NAME  Frenchman's Cap National Park

TYPE  NP  BIOTIC PROVINCE  6.5.5

LEGAL PROTECTION  Total

DATE ESTABLISHED  29 August 1951

GEOGRAPHICAL LOCATION  West-central Tasmania:  S 42°17';  E 145°50'

ALTITUDE  305-1444 metres

AREA  10,215 ha

LAND TENURE  State Reserve

PHYSICAL FEATURES  The principal feature is the white quartz peak after which the park is named. It has a 305 m high face on the east. The surrounding landscape is rugged and glaciated with many scattered lakes and tarns. Weather conditions in the area tend to be poor, with extensive snow cover in winter and occasional flooding of the Lodden river.

VEGETATION  Tasmanian highland vegetation: 30% closed forest of Nothofagus cunninghamii-Eucryphia lucida; 30% eucalyptus forest dominated by Eucalyptus coccifera, E. nitida and E. obliqua and with sclerophyll or rain forest understorey; 10% scrub with Leptospermum, Crites, Olearia and Richea; 20% open and closed heathlands with a wide range of species of such genera as Cyathodes, Epacris, Baeckea and Richea. Remaining 10% includes subalpine and alpine grassland and herbland, in which Gymnoschoenus sphaerocephalus, Restio sp. and Astelia alpina are among the interesting plants.

NOTEWORTHY FAUNA  Mammals include the red-necked or Bennett's wallaby Proteus conspicuus, rufous-bellied pademelon Thylogale billardierii, brush-tailed possum Trichosurus vulpecula, wombat Vombatus ursinus, spotted-tailed cat Dasyurus maculatus and the other Tasmanian native cat Dasyurus viverrinus, and the Tasmanian devil Sarcophilus harrisii. The thylacine (Tasmanian tiger) Thylacinus cynocephalus, although thought to be extinct, is known to have frequented this area.

ZONING  None

DISTURBANCES OR DEFICIENCIES  Danger of fire; the last major outbreak was in 1966

TOURISM  No roads within the park: mainly used by bush walkers. Huts are provided on the marked track at Lake Vera and Lake Tahune.

SCIENTIFIC RESEARCH

SPECIAL SCIENTIFIC FACILITIES

STAFF  No permanent staff: visited by rangers from nearby Lake St. Clair National Park.

BUDGET  None specifically provided

LOCAL PARK ADMINISTRATION  None
NAME: Mount William National Park

TYPE: NP

LEGAL PROTECTION: Total

DATE ESTABLISHED: 3 October 1973

GEOGRAPHICAL LOCATION: North-east Tasmania: S 40°50'-41°00'; E 148°12'-148°20'

ALTITUDE: Sea level to 216 metres

AREA: 9797 ha

LAND TENURE: State Reserve

PHYSICAL FEATURES: The area is underlain by Devonian granite which has given rise to yellow podzolic soils supporting dry forest. Annual precipitation 750 mm.

VEGETATION: Dry sclerophyll forest, the principal species being Eucalyptus gobulus, E. ovata, E. viminalis, E. obliqua and E. sieberiana. The scrub layer and ground cover is heath including Epacris spp., Aotus villosa and grass trees Xanthorrhoea spp.

NOTEWORTHY FAUNA: The main purpose of the reserve is to maintain an adequate area of habitat for the kangaroo Macropus canguru (giganteus). Other mammals include the echidna Tachyglossus setesus, the 'native cat' or eastern dasyure Dasyurus quoll (viverrinus), barred bandicoot Perameles gunni, brown bandicoot Thylacis (Isodon) obesulus, pademelon Thylomale billardieri, red-necked wallaby Proteomodon rufogrisea, wombat Vombatus ursinus tasmaniensis and Tasmanian rat kangaroo Bettongia cuniculus (gaimardi).

ZONING: Management plan not yet made

DISTURBANCES OR DEFICIENCIES: Some holiday shacks on short-term leases near Eddystone Point.

SCIENTIFIC RESEARCH: None

SPECIAL SCIENTIFIC FACILITIES: None

PRINCIPAL REFERENCE MATERIAL: No information

STAFF: None

BUDGET: None

LOCAL PARK ADMINISTRATION: None (National Parks and Wildlife Services, P.O. Box 210, Sandy Bay, TAS 7000, Australia).
NAME  Maria Island National Park

TYPE  NP

BIOISTIC PROVINCE  6.5.5

LEGAL PROTECTION  Total

DATE ESTABLISHED  14 June 1972

GEOGRAPHICAL LOCATION  Island off the east coast: E 42°35'-42°45'; E 148°00'-148°10'

ALTITUDE  Sea level to 709 metres

AREA  9672 ha

LAND TENURE  State Reserve

PHYSICAL FEATURES  Two well defined islands connected by a low, narrow isthmus. The northern one is more rugged than the southern and dominated by a central ridge capped by Jurassic dolerite above siliceous Triassic sandstones. A north-south fault runs through the islands and Devonian granite forms bold headlands on the east coast. At the northern extremity there is a magnificent cliff with a series of sand, silt and limestone formations rich in fossils. Annual rainfall is 500-750 mm.

VEGETATION  Dry sclerophyll open forest with Eucalyptus obliqua-E. viminalis and E. globulus-E. viminalis associations occupying an estimated 40% of the area. Other common eucalypts are E. linearis, E. amygdalina and E. ovata. In the deeper and damper gullies blackwood Acacia melanoxylon, dogwood Pomaderris apetala and sassafras Atherosperma moschatum occur and also the tree ferns Dicksonia antarctica and Cyathea australis. The more open woodland contains some Casuarina monilifera, Banksia marginata and Exocarpos cupreisiformis. Dense thickets on the high rocky central areas include Oyster Bay pine Callitris tasmanica, mountain pepper Drimys lanceolata and Christmas bush Prostanthera lasianthos.

NOTEWORTHY FAUNA  Mammals known to be native include the echidna Tachyglossus setosus, pygmy phalanger or possum Cercartetus nanus, ring-tail possum Pseudocheirus convolutor, rufous-balled pademelon Thylagale billardieri, potoroo Potorous tridactylus (apicaulis), e. swamp rat Rattus lutreolus and beaver rat Hydromys chrysogaster. 92 bird species have been recorded and the island is the stronghold of the rare endemic forty-spotted pardalote Pardalotus quadragintus. Many species of lizards and frogs have been recorded and 3 interesting spiders. Between 1969 and 1971 the grey kangaroo Macropus canguru (giganteus) was introduced successfully.

ZONING  Management plan not yet made

DISTURBANCES OR DEFICIENCIES  None except for introduced species the effects of which are not yet known.

TOURISM  Very popular with visitors, especially youth groups. No facilities for campers except at Darlington and Chinamans Bay, where a number of old buildings have been made available. Marked tracks lead to points of special interest.

SCIENTIFIC RESEARCH  Assessment of the programme of animal introduction undertaken from 1969-1971.
SPECIAL SCIENTIFIC FACILITIES
None

PRINCIPAL REFERENCE MATERIAL

STAFF
Ranger and assistant ranger

BUDGET
State Government

LOCAL PARK ADMINISTRATION
The Ranger, Maria Island National Park, Private Bag, Triabunna, Tasmania 7273, Australia.
NAME Lower Glenelg National Park

TYPE NP

BIOTIC PROVINCE 6.10.1

LEGAL PROTECTION Total

DATE ESTABLISHED 16 December 1969

GEOGRAPHICAL LOCATION Adjoining the South Australian border, 48 km from Portland: S 37°59'-38°09'; E 140°58'-141°20'

ALTITUDE Sea level to 150 metres

AREA 9065 ha

LAND TenURE Entirely public ownership

PHYSICAL FEATURES The park is crossed by the lower reaches of the Glenelg river flowing from the north as a deep large stream between high limestone cliffs. These Tertiary limestones are extensive and have many caves, some containing sub-fossils, and forming tourist attractions. Basalt flows on the north-east are overlain by modern blown sand dunes and elsewhere there are Pleistocene calcareous dunes and limestones. Swamy heath wetlands cover approximately 200 ha. Modified mediterranean climate with average annual temperature of 13.7°C and annual rainfall of 732 mm.

VEGETATION The most ecologically diverse area in the State with a large assemblage of the regional flora. 661 species of native vascular plants (including 50 orchids) have been recorded, plus 320 species of fungi, 60 species of mosses, 45 species of lichen and 32 species of liverworts. 50% of area with open forest or scrub of Eucalyptus baxteri, E. nitida, E. radiata and E. obliqua; 45% with closed or open heath of Banksia marginata, Melaleuca squarrosa and Leptospermum myrsinoides, with some swamp she-oak Casuarina paludosa and Leucopogon sp. The dunes support coast wattle Acacia sophorae and Ajuga australis. Also present: rough tree-fern Cyathea australis and various sedges.

NOTEWORTHY FAUNA Abundant and characteristic mammals include the echidna Tachyglossus aculeatus, platypus Ornithorhynchus anatinus, tiger cat Dasyurus maculatus, sugar glider Petaurus breviceps, koala Phascolarctos cinereas, red-necked wallaby Protemnodon rufogrisea, eastern grey kangaroo Macropus giganteus and potoroo or long-nosed rat kangaroo Potorous tridactylus. Of the 160 recorded bird species the emu Dromaius novaehollandiae is abundant, as are chestnut teal Anas castanea, peregrine falcon Falco peregrinus, southern emu-wren Stipiturus malachurus and red wattle bird Anthochaera carunculata. Sub-fossil remains of 28 mammals have been found.

ZONING Not yet established

DISTURBANCES OR DEFICIENCIES None

SCIENTIFIC RESEARCH None

SPECIAL SCIENTIFIC FACILITIES None
PRINCIPAL REFERENCE MATERIAL


STAFF
Ranger soon to commence supervision

BUDGET
1973: AUS$ 505 (US$ 662). Will rise to AUS$ 4500 (US$ 5898)

LOCAL PARK ADMINISTRATION
Nil (Ministry for Conservation, 240 Victoria Pde., East Melbourne, Vic. 3002, Australia)
NAME  Hartz Mountains National Park

TYPE  NP  BIOTIC PROVINCE  6.5.5

LEGAL PROTECTION  Total

DATE ESTABLISHED  12 March 1952

GEOGRAPHICAL LOCATION  South-western Tasmania, 80 km from Hobart: S 43°11'-43°17'; E 146°41'-146°46'

ALTITUDE  160-1255 metres

AREA  8620 ha

LAND TENURE  State Reserve

PHYSICAL FEATURES  The main feature is Hartz peak. A large part of the area is high moorland dotted with picturesque lakes of glacial origin. A scenic viewing point near the park entrance has a magnificent view to the east overlooking the Arve valley. Average annual rainfall is 1778 mm.

VEGETATION  Woodland and forest dominated by Nothofagus cunninghami and eucalypts which include snow gum Eucalyptus coccifera, varnished gum E. vernicosa, E. johnstonii, E. nitida, E. obliqua and E. regnans, with the usual mixture of sclerophyll and rain forest understorey, and also some coniferous forest of Athrotaxis cupressoides and A. selaginoides. A large part of the uplands are alpine moorlands and open heaths, with stunted trees included snow gum E. coccifera. Many of the endemic heaths of the genus Richea, including the 4 m high R. pandanifolia, are present, also the Tasmanian Waratah Telopea truncata, which has conspicuous flowers in late December. The endemic alpine geum Geum renifolium is present in remote areas, flowering in January.

NOTEWORTHY FAUNA  Mammals much as in other Tasmanian National Parks, notably red-necked Bennett’s wallaby Protemnodon rufogrisea, rufous-bellied pademelon Thylogale billardierii, brush-tailed possum Trichosurus vulpecula and wombat Vombatus ursinus. Two endemic frogs are common: the Tasmanian froglet Crinia tasmaniensis (first described in 1840, rediscovered in 1949, and now known to be common and widespread) and the Tasmanian tree frog Hyla borrowsii (most common in the rain forest; a relatively large species which was long overlooked and only described in 1942).

ZONING  Awaiting management plan

DISTURBANCES OR DEFICIENCIES  None reported

TOURISM  Occasional day visits: facilities include several well defined walking trails and a picnic area with shelter. The last 15 km of road from Geeveston, on the access route from Hobart, has a gravel surface and is occasionally closed by snow.

SCIENTIFIC RESEARCH  None

SPECIAL SCIENTIFIC FACILITIES  None

WDNP  IUCN © 1977  (1)F
PRINCIPAL REFERENCE MATERIAL


STAFF
Senior ranger and assistant

BUDGET
No details given

LOCAL PARK ADMINISTRATION
Under control of Senior Ranger at Mount Field National Park, Tasmania 7456, Australia.
NAME  Kinglake National Park

TYPE  NP

LEGAL PROTECTION  Total

DATE ESTABLISHED  1928, reserved under the Land Act; 1956, inaugurated as a National Park.

GEOGRAPHICAL LOCATION  South central Victoria, 64 km north of Melbourne: S 37°30'-37°38'; E 145°14'-145°24'

ALTITUDE  150-600 metres

AREA  5706 ha

LAND TENURE  Entirely public ownership

PHYSICAL FEATURES  Located in the Great Dividing Range across the Great Divide, mainly on the southern slopes but partly on the Kinglake plateau. Sedimentary Silurian mudstones and sandstones with rare marine fossils and lower Devonian sediments. Podzolic soils with gravel evident in most places. Most drainage to south in small creeks, Sugarloaf Creek being the only permanent one. Some drainage northwards to the Yea River. The Wombelano Falls and the Mason's Falls are well-known features. Modified mediterranean climate with average temperature of 11.4°C and 12.35 mm annual rainfall. Microclimates in sheltered gullies.

VEGETATION  Approximately 200 species of native plants. Some tall open wet sclerophyll forest, with mountain ash Eucalyptus regnans, E. viminalis and tree-ferns. Mainly dry sclerophyll forest with messmate, E. obliqua, E. radiata, E. viminalis, E. dives, E. polyanthemos and E. macrocarpa. A small amount of closed forest with Nothofagus cunninghamii, also grey gum Eucalyptus cypellocarpa.

NOTEWORTHY FAUNA  Most prevalent mammals include echidna Tachyglossus aculeatus, platypus Ornithorhyncus anatinus, brown marsupial mouse Antechinus stuartii, dusky marsupial mouse A. swainsonii, koala Phascolarctos cinereus, wombat Vombatus ursinus and black-tailed wallaby Protemnodon bicolor. Over 90 species of native bird have been recorded including swift parrot Lathamus discolor, eastern rosella Platycercus eximius, musk lorikeet Glossopsitta concinna, sacred kingfisher Halcyon sancta and the lyre-bird Menura superba.

ZONING  Not yet established, but some areas are not open to visitors

DISTURBANCES OR DEFICIENCIES  None

TOURISM  Over 111,000 visitors in 1972. Day visitor park with two picnic areas, no camping permitted.

SCIENTIFIC RESEARCH  Nil

SPECIAL SCIENTIFIC FACILITIES  None

PRINCIPAL REFERENCE MATERIAL


WDNP  IUCN © 1975  8(1)F  Code:  AUS.4.59
STAFF  3 full-time units (2 rangers, 1 assistant), one part-time cleaning staff member.

BUDGET  AUS$ 34,600 (US$ 45,347)

LOCAL PARK ADMINISTRATION  Local Committee of Management, appointed by the Minister for Conservation, controls the day to day running of the park subject to control by the National Parks Service.
NAME: Cooloola Fauna and Flora Reserve

TYPE: NR

LEGAL PROTECTION: Total

DATE ESTABLISHED: 29 November 1962

GEOGRAPHICAL LOCATION: Pacific coast of Queensland: S 26°09'-26°13'; E 153°05'-153°06'

ALTITUDE: Sea level to 214 metres

AREA: 4325 ha

LAND TENURE: Crown Reserve

PHYSICAL FEATURES: The area includes parts of the Cooloola coloured sand mass, the Cooloola sand patch and coastal dunes. Other features include the freshwater Lake Cooloola, the saltwater Lake Como, parts of Lake Cotharaba and the eastern bank of the Noosa river. Mean annual temperature is 20.1°C and mean annual rainfall is 1624 mm.

VEGETATION: Typical "wallum" with she-oak Casuarina spp., Banksia spp., and Melaleuca spp. Beach spinifex Spinifex hirsutus is found on the dune area and sedges and Gahnia spp., in the swamps. There is much blackbutt Eucalyptus pilularis and associated Eucalyptus spp., as well as a small portion of lowland rainforest (the Ramsay scrub). Grasses include kangaroo grass Themeda australis and blady grass Imperata cylindrica. Many native wildflowers and orchids are found. Preservation of the "wallum" habitat is one of the purposes of the reserve.

NOTEWORTHY FAUNA: Marsupials include the yellow-bellied glider Petaurus australis and the rufous rat-kangaroo Aepyprymnus rufescens. The area is one of the few known remaining habitats of the rare ground parrot Pezoporus wallicus (a Red Data Book species). The emu-wren Stipiturus malachurus, has also been recorded, this being the first record of this species from Queensland. Other birds include the pied oystercatcher Haematopus ostralegus, the variegated wren Malurus lamberti and several species of honeyeaters. There are several endemic species of frog, at least five of which are undescribed, also a rare 4-fingered skink Anotis graciloides has been found in the rainforest.

ZONING: The whole reserve is closed to any use other than approved scientific study.

DISTURBANCES OR DEFICIENCIES: Despite recent posting of large sanctuary notices there continues to be camping, use of lakes by fishermen, collecting of coloured sand and use of beach buggies on dunes.

SCIENTIFIC RESEARCH: Faunal survey now underway. Vegetation survey of coastal lowlands already completed.

SPECIAL SCIENTIFIC FACILITIES: None
PRINCIPAL REFERENCE MATERIAL


FAUNA CONSERVATION BRANCH, Queensland Department of Primary Industries. Unpublished records.


STAFF 2 fauna rangers based in Brisbane, s. Queensland. Research personnel visit the area. A number of local honorary protectors and Department of Forestry staff (ex officio fauna officers) police the area.

BUDGET No information

LOCAL PARK ADMINISTRATION The Director, Fauna Conservation Branch, Department of Primary Industries, William Street, Brisbane, Queensland 4000, Australia.
NAME  Strzelecki National Park

TYPE  NP

Biotic Province  6.5.5

LEGAL PROTECTION  Total

DATE ESTABLISHED  15 March 1967

GEOGRAPHICAL LOCATION  South-west Flinders Island, Furneaux Group: S 40°13'-40°15'; E 148°05'-148°10'

ALTITUDE  Sea level to 750 metres

AREA  3946 ha

LAND TENURE  State Reserve

Physical Features  Dominated by the Strzelecki peaks and the Razorback. The whole area is Deconian granite apart from a small strip of Tertiary sediments along the northern boundary. Annual rainfall between 500-700 mm.

Vegetation  Ranges from dry sclerophyll to montane with pockets of rainforest in some of the gullies. The most common eucalypts are Eucalyptus globulus, E. nitida and E. viminalis. The gullies have species not commonly seen on the Tasmanian mainland including Bedfordia linearis and the austral king fern Todea barbara.

Noteworthy Fauna  Among the mammals brush-tailed possum Trichosurus vulpecula fuliginosus, pademelon Thyløgale billardieri and red-necked wallaby Protemnodon rufogrisea are all very common. The ringtail possum Pseudocheirus convolutus (peregrinus) is less abundant. The Flinders Island wombat Vombatus ursinus urisinus is of special interest as belonging to the typical race in contrast to the race V. ursinus tasmaniensis which occurs on Tasmania itself. The little Tasmanian marsupial mouse Antechinus minimus, the little pygmy possum Eudromicia (Cercatetus) lepida and the velvet-furred or swamp rat Rattus lutreolus have all been recorded. One rare endemic bird, the forty-spotted pardalote Pardalotus quadragintus, occurs in the park.

Zoning  Management plan not yet made

Disturbances or Deficiencies  Feral pigs cause considerable damage, particularly in creek beds and areas fringing farmland.

Tourism  One marked path to the peaks for walkers has been established

Scientific Research  None

Special Scientific Facilities  None

Principal Reference Material  No details

Staff  None

Budget  None

Local Park Administration  None (National Parks and Wildlife Services, P.O. Box 210, Sandy Bay, TAS 7000, Australia).

WDNP  IUCN © 1975  8(1)F  Code:  AUS.5.13
AUSTRALIA

NAME Angourie National Park

TYPE NP

Biotic Province 6.5.1

Legal Protection Total

Date Established 1973

Geographical Location North-eastern New South Wales, on coast: S 29°28'-29°35'; E 153°16'-153°22'

Altitude Sea level to 162 metres, mean 11 metres

Area 3766 ha

Land Tenure Crown land

Physical Features A former continental peninsula with small off-shore islands which have now been linked by sand deposition to form irregular longitudinal sand ridges with dry heath through which meander drainage depressions forming fresh water swamps. The underlying rocks are Permian and have been reduced to base level. The area is backed on the west by the upturned margins of the Clarence basin. The park includes Lake Arragon and the shore of the tidal Wooloweyah estuary. Mean daily temperature 19°C, mean monthly rainfall 140 mm.

Vegetation The area has been intensively studied botanically and three areas of high scientific importance designated as 'Scientific Areas'. S.A.1 includes very rare species and also has Pandanus pedunculatus and coast she-oak Casuarina equisetifolia in relatively undisturbed environments. Rare species are Lycopodium drummondii, Haloragis verrucosa and Pultenaea sp.; S.A.2 is a unique example of succession from sand to country rock with undescribed spp. of Acacia and Isopogon also unusual occurrences, e.g., the most northerly stands of Christmas bush Ceratopetalum gummiferum and Eucalyptus microcorys; S.A.3 illustrates the interesting plant succession of the western margin of the lake, partly resulting from differences in salinity.

Noteworthy Fauna Mammals include koala Phascolarctos cinereus and grey kangaroo Macropus canguro; birds include the emu Dromaius novaehollandiae, white breasted sea eagle Haliaetus leucogaster, various shore birds, the coucal or swamp pheasant Centropus phasianinus, currawong Strepera sp., and many insectivorous species and honeyeaters, some of which are migratory; reptiles include the lace monitor Varanus varius and death adder Acanthophis antarcticus.

Zoning None reported

Disturbances or Deficiencies Heavy mineral beach sand mining occurs along the coast. Minor pressures include illegal grazing, burning and felling.

Tourism Used for a wide range of recreational activity; access limited to bush tracks. Large-scale development is planned north of the park and there is a variety of major agricultural and livestock farming in the vicinity.

Scientific Research An intensive botanical survey has been carried out
SPECIAL SCIENTIFIC FACILITIES
No information

PRINCIPAL REFERENCE MATERIAL
Numerous publications, chiefly concerning heavy mineral sands, geomorphology, history and prehistory, and the flora.

STAFF
No information

BUDGET
No information

LOCAL PARK ADMINISTRATION
NAME Captain James Cook National Park

TYPE NP    BIOTIC PROVINCE 6.5.1

LEGAL PROTECTION Total

DATE ESTABLISHED 16 December 1969 by Act No. 7920

GEOGRAPHICAL LOCATION Eastern Victorian coast, between Wingan Inlet and Marlo: S 37°44'-37°46'; E 149°12'-149°17'

ALTITUDE Sea level to 500 metres

AREA 2712 ha

LAND TENURE Entirely public ownership

PHYSICAL FEATURES On the East Gippsland coast with 8.09 km of coastline. Geology includes lower Devonian Bega granite, a limited outcrop of Ordovician shales, Pliocene sands, silt and gravels and Quaternary sand dunes of siliceous character. One dune is over 170 m in height. Dunes are still forming along coast. The Thurra river drains the park with a small lagoon estuary, occasionally blocked by sandslips to form extensive swamps. Such wetlands occupy c. 100 ha. Modified mediterranean climate with average annual temperature 15°C and 1050 mm rain.

VEGETATION Over 320 vascular plants recorded. Dry sclerophyll forest with silvertop Eucalyptus sieberi, yellow stringybark E. muelleriana and Gippsland grey box E. bosistoana. Low open forest with Leptospermum laevigatum and Banksia integrifolia on dune sand, heath with B. marginata, Leptospermum myrsinoides, L. juniperinum and Melaleuca squarrosa. River flats with Oyster Bay pine Callitris rhomboidea and mahogany gum Eucalyptus botryoides. Rare species include promontory daisy bush Olearia allenderae and streaked rock orchid Dendrobium striolatum.

NOTEWORTHY FAUNA Records include 20 species of marsupial, 10 placental mammals, 20+ reptiles and over 200 birds. Most abundant species is the red-necked wallaby Protomodon rufigrisea. Also characteristic are the echidna Tachyglossus aculeatus, tiger cat Dasyurus quoll maculatus and potoroos Potorous tridactylus (both rare species). Birds include 4 rare species, the ground parrot Pezoporus wallacis, swift parrot Lathamus discolor, southern emu-wren Stipiturus malachurus and eastern bristle bird Dasyornis brachypterus. Characteristic reptiles include the lace monitor Varanus varanus, Gippsland water dragon Physignathus lesueurii howittii and diamond python Morelia a. argus.

ZONING Not yet established

DISTURBANCES OR DEFICIENCIES The size of the park was conceived as 22,000 ha and is not a complete ecological entity at present.

SCIENTIFIC RESEARCH None

SPECIAL SCIENTIFIC FACILITIES None
PRINCIPAL REFERENCE MATERIAL


STAFF No permanent staff. Ranger, stationed at Mallacoota Inlet, conducts regular patrols.

BUDGET AUS$ 500 (US$ 655)

LOCAL PARK ADMINISTRATION Controlled by ranger stationed at Mallacoota Inlet National Park approximately 96 km to the east.
NAME: Epping Forest National Park

TYPE: NP

BIOTIC PROVINCE: 6.5.1

LEGAL PROTECTION: Total

DATE ESTABLISHED: 1971 Government Gazette 1971.3.482

GEOGRAPHICAL LOCATION: About 130 km north-west of Clermont, central-eastern Queensland: S 22°22'; E 146°43'

ALTITUDE: 280 metres

AREA: 2663 ha

LAND TENURE: State owned

PHYSICAL FEATURES: Flat terrain with soil of loamy fine sand, reasonably friable, well drained and with good holding properties. Soil type may be the critical factor in determining the suitability of the habitat for the hairy-nosed wombat.

VEGETATION: Mainly evergreen woodlands and open savanna woodlands with a winter ground cover of sparse dry grass and occasional herbs. Maximum tree height 15 m. Common species include Acacia excelsa, Bauhinia hookeri, Heterodendrun oleifolium, Eucalyptus tesselaris and E. terminalis.

NOTEWORTHY FAUNA: The only area in Australia with a population of the Queensland hairy-nosed wombat Lasiorhinus (Latifrons) bennardi, a Red Data Book species now regarded as out of immediate danger, largely because of this reserve which was created for its protection. Because of its very restricted habitat which extends over no more than about 1550 ha of the reserve, it nevertheless rates as a very rare species.

ZONING: None

DISTURBANCES OR DEFICIENCIES: Small numbers of grazing cattle, occasional bushfires and small scale clearing in the vicinity of the National Park.

SCIENTIFIC RESEARCH: No information

SPECIAL SCIENTIFIC FACILITIES: No information

PRINCIPAL REFERENCE MATERIAL:


STAFF: No information

BUDGET: No information

LOCAL PARK ADMINISTRATION
NAME Porongurup National Park

TYPE NP

BIOTIC PROVINCE  6.5.4

LEGAL PROTECTION Not total since the Parks and Reserves Act 1895-1968 is subject to the Mining Act 1972.

DATE ESTABLISHED 23 March 1957 by Executive Council

GEOGRAPHICAL LOCATION 40 km north of Albany, near the Stirling Range: S 34°40'; E 117°53'

ALTITUDE Estimated maximum 634 metres

AREA 2239 ha

LAND TENURE Class "A" reserve, Crown land

PHYSICAL FEATURES The Porongurups are a low rugged and largely forested range of hills of magmatic granite, adjoining but lower in altitude than the peaks of the nearby Stirling Ranges.

VEGETATION Tall open forests of karri Eucalyptus diversicolor occupy considerable portions of the western half of the range. Other areas have open forest with jarrah E. marginata and marri E. calophylla, also E. cornuta. Lithic associations grow on granite rock areas. Villarsia calthifolia is only known from one moist locality near the top of the hills.

NOTEWORTHY FAUNA Assumed to be typical of the south west. It is chiefly remarkable for being the only known area where the geographical ranges of two species of tree frogs Hyla moorei and H. cyclorrhynchus overlap. One of the sites of co-existence without interbreeding has been destroyed by construction of the Bolganup Dam. An endemic spider restricted to the Porongurups but common at the foot of Nancy's Peak is a species of primitive Mygalomorph belonging to an undescribed genus. Two other species of the genus are known, one from the Stirling Ranges, another from the Grampians in Victoria.

ZONING I-A, I-B, 99% conservation, 1% developed

DISTURBANCES OR DEFICIENCIES Vulnerable because of its small size to unwitting destruction of natural bush and fauna through haphazard tourist development. One adverse effect of the building of a dam, to supply Mt. Barker township, has been noted above.

TOURISM Guest house outside the Park, development confined to tracks and an access road from Mt. Barker.

SCIENTIFIC RESEARCH No information

SPECIAL SCIENTIFIC FACILITIES No information

PRINCIPAL REFERENCE MATERIAL None listed

STAFF Patrolled by a ranger from Stirling Ranges National Park

BUDGET AUS$ 5,000 (US$ 6,553)

WDNP IUCN © 1975 8(1)F  Code: AUS.5.53
NAME  Sir James Smith Islands National Park

TYPE  NP

BIOTIC PROVINCE  6.7.1

LEGAL PROTECTION  Total

DATE ESTABLISHED  1936: Government Gazette 1936.2.1994

GEOGRAPHICAL LOCATION  An island group situated north-east of Mackay: S 20°35'-20°46'; E 149°04'-149°12'

ALTITUDE  Sea level to 282 metres (the peak on Linne Island)

AREA  1805 ha (total of 13 islands)

LAND TENURE  State owned

PHYSICAL FEATURES  Rugged topography: for example Goldsmith Island, the largest of the group (647.6 ha) is mountainous with precipitous slopes on the eastern side and two beaches on the west.

VEGETATION  Tall closed forest, closed forest and open forest. Goldsmith Island is 70% covered with tall woodland and open forest/woodland with hoop pine Araucaria cunninghamii, Eucalyptus drepanophylla, E. tessellaris; other islands have similar forests. Otherwise low microphyll vine forest with E. drepanophylla, open-heath (e.g., Locksmith Island) or tussock grassland and hare rock (e.g., Pincer Island). One of the purposes of the reserve is the preservation of the indigenous flora.

NOTEWORTHY FAUNA  No information

ZONING  No information

DISTURBANCES OR DEFICIENCIES  No information

SCIENTIFIC RESEARCH  No information


STAFF  No information

BUDGET  No information

LOCAL PARK ADMINISTRATION
NAME Mount Aberdeen National Park

TYPE NP

BIOTIC PROVINCE 6.7.1/6.5.2

LEGAL PROTECTION Total

DATE ESTABLISHED 1952: Government Gazette 1952.1.922

GEOGRAPHICAL LOCATION Approximately 40 km south west of Bowen, central Queensland: S 20°15'; E 147°55'

ALTITUDE 75-990 metres

AREA 1667 ha

LAND TENURE State owned

PHYSICAL FEATURES Mount Aberdeen is extremely precipitous and rugged rising to 990 m (approximately 915 m above the surrounding countryside). The surrounding country is very rough and broken, so quite unsuitable for development.

VEGETATION 75% of the area is occupied by open-forest associations of mainly Eucalyptus spp., the remaining 25% is high closed or closed lowland rainforest of a mixed notophyll vine-forest type, with some Araucaria cunninghamii. The vegetation is considered unique and its protection and that of the ruggedly beautiful scenery are the principal objectives of the park.

NOTEWORTHY FAUNA No information

ZONING Presumably none

DISTURBANCES OR DEFICIENCIES No information

SCIENTIFIC RESEARCH No information

SPECIAL SCIENTIFIC FACILITIES No information


STAFF No information

BUDGET No information

LOCAL PARK ADMINISTRATION
NAME Rocky Cape National Park

TYPE NP

LEGAL PROTECTION Total

DATE ESTABLISHED 21 June 1967

GEOGRAPHICAL LOCATION At the western end of the north coast of Tasmania:
S 40°53'; E 145°32'

ALTITUDE Sea level to a few metres

AREA 1620 ha

LAND TENURE State Reserve

PHYSICAL FEATURES Several miles of rocky coast with rock shelters and caves containing aboriginal middens: of importance for archaeological research. The other main feature of the park is its flora, which is of considerable botanical interest.

VEGETATION Coastal heath and scrubland with 17% open scrub with Eucalyptus nitida, Banksia marginata and Leptospermum sericeum; 68% open herbland with many Orchidaceous species, Gymnoschoenus spherocephalus, Xanthorrhoeas australis and a variable amount of Epaecridaceae. Banksia serrata also occurs and its Tasmanian distribution is restricted to a small area in the park vicinity.

NOTEWORTHY FAUNA No information

ZONING None, but the protection of the aboriginal middens is a principal objective

DISTURBANCES OR DEFICIENCIES Problems with control of fire and erosion

TOURISM No accommodation: no special facilities, but the park is only 32 km west of Wynyard.

SCIENTIFIC RESEARCH None reported

SPECIAL SCIENTIFIC FACILITIES None

PRINCIPAL REFERENCE MATERIAL


STAFF No permanent staff: rangers from other areas are called upon to implement works programmes.

BUDGET None specifically provided

LOCAL PARK ADMINISTRATION None

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BAHAMAS

AREA  11,406 sq. km

POPULATION  197,000 (1974 estimate)

PARKS AND RESERVES LEGISLATION  No information, but the Bahamas National Trust Act is quoted as the basis for the one existing Park, which was enacted in or before 1958.

PARKS AND RESERVES ADMINISTRATION  No information, but presumably vested in the Bahamas National Trust.

ADDRESS  Executive Director, Bahamas National Trust, P.O. Box N-4105, Nassau, New Providence, Bahamas.

TOTAL AREA UNDER PROTECTION  45,584 ha

PROTECTED AREAS

3.1 Exuma Cays Land and Sea Park  45,584 ha
BAHAMAS

NAME Exuma Cays Land and Sea Park

TYPE NP-M

BIOTIC PROVINCE 3.1.2.3

LEGAL PROTECTION Regulations protect natural resources of the Park; the removal of the marine or terrestrial fauna and flora is prohibited (except by fishing with line, hand held spear and Hawaiian sling); camping not permitted.

DATE ESTABLISHED 1958 (under the provisions of the Bahamas National Trust Act)

GEOGRAPHICAL LOCATION About 80 km south-east of Nassau, New Providence Island: boundary coordinates are - N 24°31'33"; W 76°50'35"; N 24°36'09"; W 76°43'40";
N 24°18'52"; W 76°26'02"; N 24°33'26"

ALTITUDE Sea level to 27 metres; maximum depth 1,300 metres

AREA 45,584 ha (2,265 ha land; 43,319 ha sea).

LAND TENURE The Bahamas National Trust (a privately supported organization).

PHYSICAL FEATURES The Park extends from Xax Cay Cut in the north to Conch Cut in the south, the major cays being Shroud, Hawksbill, Cistern and Warderick Wells. Shoals and flats predominate to the west and coral reefs and sandy beaches to the east. Coral reef development is of an intermediate character, best displayed at the northern end of the Park. Underwater visibility is 25 m +. Shroud cay is a "pseudo-atoll", with mangrove swash and some freshwater ponds. Hawksbill has extensive beaches on the east and rocky hills of up to 18 m on the west. Cistern has high ridge in centre with small caverns. Warderick Wells consists of several rocky islands enclosing a deep lagoon. The annual rainfall averages 800 mm.

VEGETATION The greater part of the Cays are covered with woody shrubs and low evergreen and semi-deciduous trees. Sandy shores have sea-grass Sporobolus virginicus, sea oats Uniola paniculata and bay cedar Suriana maritima. Rocky shores have sandyly bush Rhachicallis americana, strumpfia Strumpfia maritima and bay marigold Barroeta arborescens. A scrub of seaside grape Coccoloba uvifera, seven-year apple Casassia clusiafolia and silver thatch palm Coccothrinax argentea covers rocky areas and coppice areas consist of white wood Picrodendron macrocarpum, black torch Erithalis fruticosa and wild dilly Mimusops emarginata. The marine vegetation is composed of a rich growth of algae and turtle grass Thalassia.

NOTEWORTHY FAUNA The small size and habitat characteristics of the terrestrial areas result in a limited fauna, with only a few species that are not North American. These include the Bahaman woodstar Calliphlox evelynae, red-legged thrush Turdus plumbea, Bahaman mockingbird Mimus gundischii and bananquit Coereba flaveola. Small lizards are common, also the chameleon Anolis sp. The marine fauna is diverse and typical of Caribbean and West Indian coral reefs. Fish numbers are greatest on the eastern side of some of the cays where reefs are large and coral growth luxurious. Molluscs are abundant and include the pink or queen conch Scrombus gigas, horn shells Cerithiidae spp. and Nerita spp.

ZONING None: treated wholly as strict nature reserve

DISTURBANCES OR DEFICIENCIES The cays are all uninhabited and disturbance is reported to be only limited and occasional
TOURISM The area is visited by private and charter vessels. Main activities include yachting, underwater photography and diving. A terrestrial wildlife trail has been cut on Shroud Cay.

SCIENTIFIC RESEARCH No record

SPECIAL SCIENTIFIC FACILITIES None

PRINCIPAL REFERENCE MATERIAL

STAFF No information

BUDGET No information

LOCAL PARK ADMINISTRATION Executive Director, Bahamas National Trust, P.O. Box N-4105, Nassau, N.P.
BOLIVIA

AREA 1,074,845 sq. km

POPULATION 4,658,000 (1970 estimate)

PARKS AND RESERVES LEGISLATION No recent information but the only area at present included in the United Nations List was set up by Presidential Decree. Whether this decree was promulgated under the provisions of the National Parks law known to have been enacted on 4 July 1942, is uncertain.

PARKS AND RESERVES ADMINISTRATION Presidential Decrees, which are otherwise known as Supreme Decrees, make provision for specific Regulations to be published governing the administration and control of each protected area. Overall responsibility is held by the department or 'service' for Renewable Natural Resources of the Ministry of Agriculture and Animal Husbandry at La Paz.

ADDRESS Ministerio de Agricultura y Ganadería, La Paz.

TOTAL AREA UNDER PROTECTION In the 1971 U.N. List, eight National Parks of small to medium size totalling over 100,000 ha in area were reported to have been promulgated but not fully established and projects for three much larger National Parks totalling nearly 2 million hectares were under consideration. No details of the protective status of these areas have been received and for the time being only the single U.N. Listed area can be included here, of which the size was previously stated to be 215,125 ha, but is now quoted as: 200,000 ha

PROTECTED AREA

2.1 Ulla Ulla National Faunal Reserve 200,000 ha
NAME Ulla Ulla National Faunal Reserve

TYPE NP

LEGAL PROTECTION Total

DATE ESTABLISHED 7 January 1972, by Supreme Decree No. 10070.

GEOGRAPHICAL LOCATION On the eastern flanks of the Andes and including the vale of the Suches river, about 200 km north of La Paz and close to the Peruvian border: N 14°45'-15°15'; W 69°00'-69°35'.

ALTITUDE 4300-5200 metres

AREA 200,000 ha

LAND TENURE Rural communal property and uncultivated land owned by the State.

PHYSICAL FEATURES The landscape is varied: valleys, glacial terraces, alluvial fans and lacustrine fluvial deposits. The climate is severe and of a puna type, with a temperature range of 8°-10°C and 700-800 mm annual rainfall.

VEGETATION Largely tundra and steppe formations (4.4.1; 4.4.2; 5.2.3) with grasses such as couch or paco Agropyron, the monotypic crespillo Aciachne pulvinata, orcko-chiji Distichlis humilis and llapa Aristida humilis. Marginal areas have a more shrubby vegetation with chehuina Polylepis incana, the composites Baccharis sp. and Lepidophyllum sp. (tola), and fescue or paja brava Festuca sp.

NOTEWORTHY FAUNA The more interesting mammals include the viscacha or mountain chinchilla Lagidium cuvieri, perhaps both the short and long-tailed chinchillas Chinchilla brevicaudata and laniger (the latter rated in the Red Data Book as 'vulnerable'), the culpeo fox Dusicyon culpaeus, Allamand's grison Galictis vittata, mountain lion Felis concolor, guanaco Lama guanicoe, and two more vulnerable species, the vicuna Vicugna vicugna and North Andean huemul Hippocamelus antisensis. Birds include the great white egret Egretta alba, buff-necked ibis Theristicus caudatus, puma ibis Plegadis ridgwayi, Andean flamingo Phoenicopterus andinus, Andean goose Chloephaga melanoptera, crested duck Lophonetta specularioides, Andean condor Vultur gryphus, white-throated caracara Phalcoboenus albogularis and American coot Fúlica americana.

ZONING None

DISTURBANCES OR DEFICIENCIES No information available

TOURISM No information available

SCIENTIFIC RESEARCH Studies of the biology, reproduction and ecology of the Vicuna undertaken by Dr. Jochen Esser (Zoological Society of Frankfurt) and the Division of Research, Ministry of Agriculture and Livestock, La Paz.

SPECIAL SCIENTIFIC FACILITIES None
PRINCIPAL REFERENCE MATERIAL


STAFF
A foreman and a few park guards.

BUDGET
This only includes personnel and totals U.S. $2,400

LOCAL PARK ADMINISTRATION
Encargo de la Reserva Nacional de Ulla Ulla, Division de Vida Silvestre y Parques Nacionales, Servicio de Recursos Naturales Renovables, Ministerio de Agricultura y Ganadería, La Paz.
BRAZIL

AREA  8,519,616 sq. km

POPULATION  107,145,168 (1975 census)

PARKS AND RESERVES LEGISLATION  The "Codigo Florestal Federal" of 15 September 1965, prescribed the rules and criteria for the establishment of National Parks and equivalent reserves by "Poder Publico". Executive power is given to the Instituto Brasileiro de Desenvolvimento Florestal and to the Instituto Nacional de Colonização e Reforma Agrária. The first organization has responsibility for conservation of natural values and patrolling of the areas and the second organization has power to expropriate lands and installations.

PARKS AND RESERVES ADMINISTRATION  The responsibility for management of National Park lands lies with the Instituto Brasileiro de Desenvolvimento Florestal (IBDF), Ministério de Agricultura.


TOTAL AREA UNDER PROTECTION  2,716,150 ha

PROTECTED AREAS

1.1 Amazonia National Park  1,000,000 ha
2.1 Araguaia National Park  460,000 ha
2.2 Serra da Canastra National Park  200,000 ha
2.3 Chapada dos Veadeiros National Park  171,924 ha
2.4 Iguazu National Park  170,000 ha
2.5 Jacupiranga State Park  150,000 ha
3.1 Emas National Park  100,000 ha
3.2 Serra de Bocaina National Park  100,000 ha
3.3 Cardá-Cardá Federal Biological Reserve  70,000 ha
3.4 Brasília National Park  38,000 ha
3.5 Rio Doce State Park  35,973 ha
3.6 Alto da Ribeira State Park  35,712 ha
3.7 Sooretama Federal Biological Reserve  24,000 ha
3.8 Ilha do Cardoso State Park  22,500 ha
3.9 Monte Pascoal National Park  22,500 ha
4.1 São Josiquim National Park  18,000 ha
4.2 Caraguatatuba State Park  13,770 ha
4.3 Itatiaia National Park  11,943 ha
4.4 Caparao National Park  10,435 ha
4.5 Aparados da Serra National Park  10,250 ha
4.6 Serra dos Órgãos National Park  10,000 ha
4.7 Campos de Jordão State Park  8,172 ha
4.8 Sete Cidades National Park  6,221 ha
4.9 Jaiba State Park  6,211 ha
5.1 Nova Lombardia Federal Biological Reserve  4,350 ha
5.2 Tijuca National Park  3,300 ha
5.3 Vila Velha State Park  3,122 ha

WDNP  IUCN © 1977 (1)F  Code: BRA.C.1
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**Name**: Araguaia National Park  
**Type**: NP  
**Biotic Province**: 3.7.3/3.9.2  
**Legal Protection**: Total  
**Geographical Location**: Ilha do Bananal, 750 km NW of Brasília on border of the State of Goias: S 9°50'-10°50'; W 49°56'-50°37'  
**Altitude**: 200-240 metres  
**Area**: 460,000 ha  
**Land Tenure**: Government land with a few squatters occupying land without title to it.  
**Physical Features**: Part of a very large island formed by branching of the Araguaia R. The area is flat with alluvial deposits over Mesozoic sandstones and is subject to periodic flooding; there are several permanent lakes.  
**Vegetation**: This is a transitional zone between the Amazon forest and the woody savanna or thick scrub known as "cerrados". Many forested areas occur, especially in the north of the park. Elsewhere open seasonally flooded grassland with gallery forest along the river banks predominates, with scattered marshland areas.  
**Noteworthy Fauna**: The fauna like the vegetation has a transitional character, the mammals including a number of species classified in the Red Data Book as vulnerable, rare, endangered or indeterminate, namely giant anteater Myrmecophaga tridactyla (V), giant armadillo Priodontes giganteus (V), maned wolf Chrysocyon brachyurus (V), bush dog Speothos venaticus (R), giant otter Pteronura brasiliensis (E), marsh deer Blastocerus dichotomus (V) and pampas deer Ozotoceros bezoarticus (I). The harpy eagle Harpia harpyja and piping guan Pipile jacutinga (= Aburría pipile nattereri) are two of the more striking birds of the park.  
**Zoning**: None  
**Disturbances or Deficiencies**: The southern boundary has not yet been defined. Illegal hunting and fishing occur, also grazing of cattle. There is a need for a larger staff of rangers and technicians.  
**Tourism**: Only facilities at present (although more are planned) are an airstrip and a small boat-harbour at Macauba, the provisional park headquarters near the northern end of the main channel of the Araguaia.  
**Scientific Research**: None  
**Special Scientific Facilities**: None  
**Principal Reference Material**: None listed  

**WDNP IUCN © 1977 (1)F Code: BRA.2.1**
STAFF  Administrator and assistant together with 4 Park Rangers

BUDGET  No recent information but reported in the 1971 U.N. List as equivalent to U.S. $ 11,600.

LOCAL PARK ADMINISTRATION  Administração, Parque Nacional Araguaia, Praça Cívica No. 10-4° andar, Edifício do. M.A., 74.000 Goiânia
NAME: Serra da Canastra National Park

TYPE: NP

BIOTIC PROVINCE: 3.6.6

LEGAL PROTECTION: Total

DATE ESTABLISHED: 3 April 1972, by Federal Decree No. 70,355

GEOGRAPHICAL LOCATION: 270 km west of Belo Horizonte and 370 km north of São Paulo, in the State of Minas Gerais: S 20°-21°; W 46°-47° (approx.)

ALTITUDE: No information but highest point of the Serra is 1800 metres

AREA: 200,000 ha

LAND TENURE: 50,000 ha are in the first stages of expropriation; the remainder presumably still privately owned.

PHYSICAL FEATURES: Parts of the mountain massifs of Serra das Sete Voltas, Serra da Canastra and Chapadão da Babilônia, together with the valleys separating them. The area is of great scenic value. Geologically composed of quartzites, mica schists, and dolomitic rocks of paleozoic age. The river São Francisco has its source at springs just inside the park boundary.

VEGETATION: At lower levels along the watercourses mainly grassland and meadows, the steeper rocky areas with typical montane vegetation. There are some gallery forests and patches of the original forest cover and the higher alpine meadows support relatively undisturbed plant communities.

NOTEWORTHY FAUNA: Some of the endemic species of the grasslands survive and with sufficient protection from hunting could be used for building up new populations. They include: giant anteater Myrmecophaga tridactyla (classified as 'vulnerable' in the Red Data Book), capybara Hydrochoerus hydrochaeris, paca Cuniculus paca (= Agouti paca), agoutis Dasyprocta spp., and pampas deer Ozotoceros bezoarticus (classified as of 'indeterminate' conservation status). Birds include the rhea Rhea americana, red-winged tinamou Rhynchotus rufescens and many birds of prey.

ZONING: Preliminary studies under way

DISTURBANCES OR DEFICIENCIES: Need to expropriate land and to regulate land tenure as well as to establish the park boundaries properly.

TOURISM: Good access roads from Belo Horizonte and São Paulo. The region of the Furnas dam, in the vicinity of the park, has a good airstrip and other facilities.

SCIENTIFIC RESEARCH: None

SPECIAL SCIENTIFIC FACILITIES: None

PRINCIPAL REFERENCE MATERIAL: None listed

STAFF: No information available as yet

BUDGET: No information

LOCAL PARK ADMINISTRATION: Parque Nacional Serra da Canastra, Av. do Cotorno 8121, Caixa Postal 1,304, 30.000 Belo Horizonte, Minas Gerais.
BRAZIL

NAME Chapada dos Veadeiros National Park

TYPE NP

BIOTIC PROVINCE 3.9.2

LEGAL PROTECTION Total

DATE ESTABLISHED 11 January 1961, by Federal Decree No. 49.857 (under the name Tocantins N.P.) and altered by Decree No. 70.492 of 11 May 1972.

GEOGRAPHICAL LOCATION About 200 km north of Brasília in Goiás State: S 13°50'-14°12'; W 47°24'-47°58'

ALTITUDE 400-1784 metres (Pico do Pouso Alto, the highest peak in Goiás)

AREA 171,924 ha

LAND TENURE 2140 ha are government land; plans for acquisition and full control of the remaining area are under consideration.

PHYSICAL FEATURES The Veadeiros area is high tableland, fairly level with shallow soils and exposed rocks, including isolated plateau areas or mesetas. Geologically it is quartzite and sandstone with pegmatite veins containing crystalline structures. Tropical climate modified by altitude to give a mean temperature of 23°C.

VEGETATION Typical central Brazilian grassland or "campos" and scrub forest or "cerrados", interspersed with dense gallery forest in the more humid valleys.

NOTEWORTHY FAUNA The mammals are characteristic of the high central plains and include giant anteater Myrmecophaga tridactyla, giant armadillo Priodontes giganteus, maned wolf Chrysocyon brachyurus, bush dog Speothos venaticus, giant otter Pteronura brasiliensis, marsh deer Blastocerus dichotomus and pampas deer Ozotoceros bezoarticus. All of these are classified in the Red Data Book as rare or vulnerable, except for the otter which is rated as 'endangered' and the pampas deer, the precise status of which remains unknown. The only bird species mentioned is the dwarf tinamou Taoniscus nanus, but if its presence here is confirmed, it is far to the north of its normal range in the States of São Paulo and Paraná and, possibly, neighbouring Misiones in Argentina.

ZONING None

DISTURBANCES OR DEFICIENCIES Grazing by cattle occurs in many areas. Grass fires are a seasonal risk. Staff are few and transport facilities scarce.

TOURISM Difficult of access (11 hours by car from Brasilia) and therefore receives few visitors. The access road is unsurfaced and said to be about double the distance of a direct line.

SCIENTIFIC RESEARCH None

SPECIAL SCIENTIFIC FACILITIES None

PRINCIPAL REFERENCE MATERIAL None listed

WDNP IUCN © 1977 (1)F Code: BRA.2.3
STAFF
Administrator and assistant together with 2 park rangers

BUDGET
No recent information, but reported as U.S. $9,400 in the 1971 U.N. List (under former name of Tocantins N.P., which embraced a far greater area).

LOCAL PARK ADMINISTRATION
NAME  Iguaçu National Park

TYPE  NP

BIOTIC PROVINCE  3.6.6/3.9.2

LEGAL PROTECTION  Total

DATE ESTABLISHED  10 January 1939, by Federal Decree No. 1035. Revised by law Decree No. 6787 of 14 July 1944.

GEOGRAPHICAL LOCATION  Adjacent to the junction of Brazil, Argentina and Paraguay: S 25°05'-25°41'; W 53°40'-54°38'

ALTITUDE  250-350 metres

AREA  170,000 ha

LAND TENURE  All land federally owned apart from 12,000 ha which are in the process of expropriation.

PHYSICAL FEATURES  The area is in 2 sections, the smaller being lower and containing the famous Iguaçu Falls which are 2700 m long with a total height of 80 m. The falls are formed by the river cutting a giant staircase down a basalt flow of triassic age. Climate is humid subtropical with more than 2000 mm rainfall spread through the year, a relative humidity of 80%-90% and an annual mean temperature of 20°C. Soils are red, semi-ateritic and poor in nutrients. Apart from the falls, the area is generally fairly flat.

VEGETATION  Subtropical rain forest, forming the biggest forest reserve in southern Brazil. It is rich in tree ferns Cyatheaceae and species of Ilex, Podocarpos, Aspidosperma, Cedrela and Philodendron. The higher and larger of the two sections of the park has subtropical deciduous forest with the Assai palm Euterpe edulis, wild coconut palm Cocos romanzoffiana, Brazilian pine Araucaria angustifolia at its western limit and imbuya Phoebe porosa. The range of habitats is an important factor in fauna conservation in the region.

NOTEWORTHY FAUNA  Principal mammals are black howler monkey Alouatta caraya, giant anteater Myrmecophaga tridactyla (rated as 'vulnerable' in the Red Data Book), capybara Hydrochoerus hydrochaeris, La Plata otter Lutra platensis (an 'endangered' species), giant otter Pteronura brasiliensis (also 'endangered') and puma Felis concolor. Birds include the solitary tinamou Tinamus solitarius, harpy eagle Harpia harpyja, black hawk-eagle Spizastus tyrannus, chimango caracara Milvago chimango, crested caracara Polyborus plancius brasiliensis, glaucous macaw Anodorhynchus glaucus, vinaceous-breasted and red-spectacled parrots Amazona vinacea and A. pretrei, also white-tailed trogon Trogon viridis and Rufous ovenbird Furnarius rufus. The reptiles include one 'endangered' and one 'vulnerable' crocodilian, the broad-snouted cayman Caiman latirostris and dwarf cayman Paleosuchus palpebrosus, and the urutu viper Bothrops alternata.

ZONING  Not yet firmly established

DISTURBANCES OR DEFICIENCIES  Some sections of the boundary are not yet defined and settlers have intruded into one area. Some illegal hunting occurs and there are insufficient park rangers.
TOURISM Considerable tourism: facilities include a good park headquarters, a first-class hotel, museum, nature trails, viewing tower, camping and picnic places. The international airport is close to the park and other accommodation facilities are available in the vicinity; the town of Foz do Iguaçu is 15 km away. The park entrance fee is 1 crz. per person.

SCIENTIFIC RESEARCH Mainly on the flora and fauna, including forest survey

SPECIAL SCIENTIFIC FACILITIES Laboratories at the museum; also accommodation

PRINCIPAL REFERENCE MATERIAL

STAFF Administrator and assistant, 8 Park Rangers, assistance of Military Police in patrolling; 50 staff supplied by Paraná State and 34 other workers.

BUDGET Cr.$ 420,570.30 in 1973

LOCAL PARK ADMINISTRATION Administrador do Parque Nacional do Iguaçu, 85.890 Poz do Iguaçu, Paraná -PR.
NAME: Emas National Park

TYPE: NP

BIOTIC PROVINCE: 3.9.2

LEGAL PROTECTION: Total

DATE ESTABLISHED: 11 January 1961, by Federal Decree No. 49.874 and altered by Federal Decree No. 70.375 of 6 April 1972.

GEOGRAPHICAL LOCATION: About 425 km WSW of Goiânia, Goiás State, near the Mato Grosso border: S 17°50'-18°15'; W 52°30'-53°10'

ALTITUDE: 850-1000 metres

AREA: 100,000 ha

LAND TENURE: 85,000 ha are government land

PHYSICAL FEATURES: A relatively flat, gently undulating high plateau area formed of sedimentary sandstones of triassic age with basalt flows and diorite sills. The area forms a watershed with many springs and water sources. Noticeable abundance of termite hills.

VEGETATION: Open grasslands and tall 'cerrado' thicket, with gallery forest along rivers.

NOTEWORTHY FAUNA: The mammals are typical central Brazilian savanna species, but have not yet been well studied. They include: giant anteater Myrmecophaga tridactyla, giant armadillo Priodontes giganteus, maned wolf Chrysocyon brachyurus (all three of them rated as 'vulnerable' in the Red Data Book), the 'rare' bush dog Speothos venaticus, marsh deer Blastocerus dichotomus (a 'vulnerable' species again) and the pampas deer Ozotoceros bezoarticus (1). Glow-worms or fire-flies swarm in great numbers at certain times of year.

ZONING: None

DISTURBANCES OR DEFICIENCIES: Lack of firebreaks allows fires on neighbouring pastures to spread into park. Some grazing by cattle. Staff are few and lack of infrastructure and difficult communications create problems. Nearest town is nearly 200 km by road (Serranopolis).

TOURISM: Good access by road (about 650 km) from Goiânia, via Rio Verde and Jataí, but little tourism as yet. Landing facilities for light aircraft.

SCIENTIFIC RESEARCH: None

SPECIAL SCIENTIFIC FACILITIES: None

PRINCIPAL REFERENCE MATERIAL:


STAFF Administrator, 3 other workers

BUDGET No recent information, but 1971 U.N. List quoted U.S. $9,400 for staff of 8.

LOCAL PARK ADMINISTRATION Administrador, Edificio do M.A., Praça Civica No. 10 - 4° andar, 74.000 Goiânia, Estado de Goiás.
NAME Serra da Bocaina National Park

TYPE NP

BIOTIC PROVINCE 3.7.5

LEGAL PROTECTION Total

DATE ESTABLISHED 4 February 1971, by Federal Decree No. 68.172 with alterations by Federal Decree No. 70.694 of 8 June 1972.

GEOGRAPHICAL LOCATION Atlantic coast Serra do Mar range, between São Paulo and Rio de Janeiro: S 22°40'-23°20'; W 44°24'-44°54'

ALTITUDE Sea level to 2150 metres

AREA 100,000 ha

LAND TENURE 23,500 ha government land; remainder presumably still in private ownership.

PHYSICAL FEATURES An offshore island, small bay and sandy and rocky beaches backed by the coastal range of the Serra do Mar. The plateau, known as the Serra da Bocaina and cut by deep valleys, is noted for the granitic batholiths and rounded gneiss blocks exposed on its surface. Climate varies with altitude.

VEGETATION Below 1800 m the characteristic vegetation is tropical rain forest. Above this altitude, upland forests and gallery forests dominated by Brazilian pine Araucaria angustifolia and Podocarpus spp. merge into the grasslands of the plateus.

NOTEWORTHY FAUNA Typical mammals of the Atlantic coastal forest found in the park include three species classified by the Red Data Book as endangered - woolly spider monkey Brachyteles arachnoides, the La Plata otter Lutra platensis, and the giant otter Pteronura brasiliensis, and the giant anteater Myrmecophaga tridactyla, which is rated as 'vulnerable'. Birds include the solitary tinamou Tinamus solitarius, harpy eagle Harpia harpyja, the ornate and the black hawk-eagles Spizaetus ornatus and S. tyrannus, black-fronted piping guan Pipile (= Aburria) jacutinga and red-capped parrot Pionopsitta pileata.

ZONING None

DISTURBANCES OR DEFICIENCIES Boundaries of the area have not yet been firmly established and much of the park area is still private property. Illegal hunting occurs.

TOURISM Great potential for tourism as the area lies between São Paulo and Rio de Janeiro and the Rio - Santos motorway passes through the park. The nearby city of Parati is protected as a historic city.

SCIENTIFIC RESEARCH Only the plateau area has been studied

SPECIAL SCIENTIFIC FACILITIES None

WDNP IUCN © 1977 (1)F Code: BRA.3.2
PRINCIPAL REFERENCE MATERIAL
No specific publications listed

STAFF
Administrator and assistant together with 14 park rangers and 10 other workers.

BUDGET
No information available

LOCAL PARK ADMINISTRATION
Delegacia Estadual do IBDF no Rio de Janeiro,
Alameda São Boaventura No. 904, Fonseca 24.000, Niterói, Rio de Janeiro.
BRAZIL

NAME  Card-Cará Federal Biological Reserve

TYPE  NR  BIOTIC PROVINCE 3.9.2

LEGAL PROTECTION  Total

DATE ESTABLISHED  28 May 1971, by Federal Decree No. 68,691 (possible extension of area in future to include the Serra do Amolar).

GEOGRAPHICAL LOCATION  Near the Bolivian border, Mato Grosso State, 150 km SSE of Cáceres and to the east of the R. Paraguay: S 17°26'-17°53'; W 57°22'-57°41'

ALTITUDE  Highest point is 350 metres

AREA  70,000 ha

LAND TENURE  Not yet established

PHYSICAL FEATURES  A sample of typical 'pantanal' or swampland of the Mato Grosso bordered in the north by the Serra do Amolar and a string of large lakes such as Mandioré, Gaiba and Uherbas. The five high ridges along the frontier which also form the boundary of the reserve are of great scenic beauty. Soils are sedimentary and the 'pantanal' which was once a desert region is now subject to floods during the summer rainy season.

VEGETATION  Extensive areas of grassland and 'cerrado' scrub savanna, with gallery forests along rivers and in swampy areas and a rich flora.

NOTEWORTHY FAUNA  The variety of habitats provides conditions for exceptional concentrations of mammals and nesting places for numerous waterfowl and other birds, making this one of the most important wildlife areas in the Neotropical region. Several mammals listed in the Red Data Book as 'vulnerable', 'rare' or 'endangered' occur, namely the giant anteater Myrmecophaga tridactyla (V), giant armadillo Priodontes giganteus (V), maned wolf Chrysocyon brachyurus (V), bush dog Speothos venaticus (R), La Plata otter Lutra platensis (E), giant otter Pteronura brasiliensis (E), marsh deer Blastocerus dichotomus (V) and the 'indeterminate' pampas deer Ozotoceros bezoarticus.

ZONING  No information

DISTURBANCES OR DEFICIENCIES  Boundaries are not yet fixed all round the area and expropriation of private property is still under way. Disturbance from hunting and from the development of large scale cattle raising in the vicinity remains a serious problem.

TOURISM  According to the 1972 Addendum to the Second Edition of the United Nations List, no tourism is permitted, in view of the 'strict reserve' status of the area.

SCIENTIFIC RESEARCH  The reserve is intended to offer conditions for basic and applied research in the fields of natural science and nature conservation.

SPECIAL SCIENTIFIC FACILITIES  None as yet
PRINCIPAL REFERENCE MATERIAL  None listed

STAFF  No information but due to the inaccessibility of the reserve no supervision had been considered necessary up to 1972, according to the U.N. List Addendum of that year.

BUDGET  No information

LOCAL PARK ADMINISTRATION  Reserva Biológica de Cará-Cará, Delegacia Estadual do IBDF de Mato Grosso, 79.900 Ponta Porã, Mato Grosso.
BRAZIL

NAME Brasília National Park

TYPE NP

BIOTIC PROVINCE 3.9.2

LEGAL PROTECTION Total

DATE ESTABLISHED 29 November 1961, by Federal Decree No. 241

GEOGRAPHICAL LOCATION Near the north-eastern boundary of the Federal District of Brasília: S 15°35'-15°45'; W 47°35'-48°05'

ALTITUDE 1000-1341 metres

AREA 38,000 ha (including an additional 10,000 ha for the Pico do Rodeador area, 1341 m, the highest point in the Federal District).

LAND TENURE All government land with boundaries fixed and protected by wire fences.

PHYSICAL FEATURES An undulating highland plateau consisting of quartzites and limestones with caves. The Pico do Rodeador area has quartz-bearing soils and deep water courses with springs and a quartzitic escarpment. A reservoir in the park supplies water to Brasília. Mean annual temperature is 20.6°C with a lowest mean monthly temperature of 16.1°C in July. Annual rainfall is 1675 mm and winds are predominantly from the east.

VEGETATION Typical of the upland tree savanna or 'cerrado', with gnarled and twisted trees and numerous termite mounds. Gallery forests occur around springs and watercourses featuring Buriti palm Mauritia vinifera and Velloziaceae, xerophytic monocotyledons similar to aloes, especially in areas with surface rock.

NOTEWORTHY FAUNA Typical of the central highland plains, the most important mammals are - black howler monkey Alouatta caraya, forest rabbit Sylvilagus brasiliensis, a newly-described rodent Juscelinomys candangus, cavy Galea spixii, the maned wolf Chrysocyon brachyurus and bush dog Speothos venaticus (classified as 'vulnerable' and 'rare' respectively, in the Red Data Book), and pampas deer Ozotoceros bezoarticus. Among the birds are the spotted tinamou Nothura maculosa, lesser yellow-headed vulture Cathartes burrovianus urubutinga, burrowing owl Spectufo cuculina, toco toucan Ramphastos toco, curl-crested jay Cyanocorax cristatellus and seed-finches Oryzoborus crassirostris and D. angolensis. Reptiles include the fer-de-lance Bothrops jararaca, the musurana Pseudoboa cloelia and teju lizard Tupinambis tejuixin.

ZONING None

DISTURBANCES OR DEFICIENCIES A master plan is needed, also a park headquarters. Insufficient infrastructure is available for tourists.

TOURISM An important recreation area only 15 minutes by car from Brasília with 200,000 visitors each year. Reception, administration and guard centres available, also many roads and footpaths through the park. Entrance fee 1 Crz. per person over 10 years old.

SCIENTIFIC RESEARCH In progress, unspecified

WDNP TUCN © 1977 (1)F Code: BRA.3.4
SPECIAL SCIENTIFIC FACILITIES None

PRINCIPAL REFERENCE MATERIAL None listed

STAFF Administrator and assistant with 23 park rangers and 34 other workers

BUDGET No recent information, but quoted as U.S. $54,500 in the 1971 U.N. List

LOCAL PARK ADMINISTRATION Administração do Parque Nacional de Brasília,
Caixa Postal 2,730-(12), 70.000 Brasília DF.
NAME: Sooretama Federal Biological Reserve

TYPE: NR BIOTIC PROVINCE: 3.7.5

LEGAL PROTECTION: Total legal protection

DATE ESTABLISHED: 21 September 1943, by Federal Decree No. 14.977 (to include the Seca Forest Reserve, IBDF Protocol No. 1415/70) but given present status under IBDF Protocol No. 939 on 6 June 1969.

GEOGRAPHICAL LOCATION: About 120 km along the coast north-west of Vitória, Espírito Santo: S 19°10'-19°17'; W 40°15'

ALTITUDE: Sea level to 30 metres

AREA: 24,000 ha

LAND TENURE: Entirely government owned

PHYSICAL FEATURES: Tertiary and quaternary sediments form a generally flat landscape rising little above the sea

VEGETATION: The reserve protects a remnant of the tropical deciduous forest which formerly occupied extensive areas of this coast. It is of biogeographical interest due to the mixing of both the Amazonian and the littoral floras, an example of this being the presence of both species of assai palm, Euterpe oleracea and E. adulis. Other species include Paratecoma peroba, rosewood Dalbergia nigra, cedar Cedrela fissilis, and milk-tree or massaranduba Mimusops elata.

NOTEWORTHY FAUNA: The fauna is of the type classified by Mello Leitão as "Tupi", with mammals such as yapok Chironectes minimus, giant anteater Myrmecophaga tridactyla (rated as 'vulnerable' in the Red Data Book), maned sloth Bradypus torquatus (rated as 'rare'), giant armadillo Priodontes giganteus (another 'vulnerable' species), giant otter Pteronura brasiliensis (an 'endangered' species) and collared peccary Tayassu tajacu. Birds include solitary tinamou Tinamus solitarius, yellow-legged tinamou Crypturellus noctivagus, harpy eagle Harpia harpyja, red-billed curassow Crax blumenbachii (classified as 'endangered'), black-fronted piping guan Pipile (= Aburria) jacutinga, white-winged cotinga Xipholaena atropurpurea, banded cotinga Cotinga maculata, racket-tailed coquette Discosura longicauda, red-breasted toucan Ramphastos dicolorus and large-billed seed-finch Orzyzoborus crassirostris. Many species of humming birds Trochilidae have been identified in the area. Reptiles include the bushmaster Lachesis muta and wood tortoise Testudo denticulata.

ZONING: No information

DISTURBANCES OR DEFICIENCIES: No information

TOURISM: Presumably excluded. The reserve is 197 km by road from Vitória.

SCIENTIFIC RESEARCH: Reserve established to protect fauna for research purposes and nature conservation. No information on current research programmes.
SPECIAL SCIENTIFIC FACILITIES  No facilities for scientific work but there is a warden's residence and some other residences for staff.

PRINCIPAL REFERENCE MATERIAL  None listed

STAFF  No current information, but an administrator, 2 assistants, 6 guards and 6 handymen were reported in the 1971 U.N. List.

BUDGET  No current information but was quoted as U.S. $ 7,700 in 1971 U.N. List

LOCAL PARK ADMINISTRATION  Delegacia Estadual do IBDF no Espírito Santo, Caixa Postal 762-Vitória, 29.000 Espírito Santo.
BRAZIL

NAME          Monte Pascoal National Park
TYPE          NP
BIOTIC PROVINCE  3.7.5

LEGAL PROTECTION       Total legal protection
DATE ESTABLISHED       29 November 1961 by Federal Decree No. 242
GEOGRAPHICAL LOCATION  50 km south of Porto Seguro, in the southern part of Bahia State: S 16°45'-16°55'; W 39°08'-39°30'
ALTITUDE             Sea level to 586 metres
AREA                22,500 ha
LAND TENURE         Entirely government owned

PHYSICAL FEATURES   The park extends from an 8 km long stretch of coast, with beaches, sandstone reefs, conglomerate rocks, dunes and lagoons, inland across the plain to the isolated pre-cambrian aged hill of Monte Pascoal rising to 586 m. The area is of historic interest as it was the first land sighted by Pedro Alvares Cabral when he discovered Brazil in 1500.

VEGETATION          Dune and beach vegetation occupies more than 4000 ha. In the remainder of the area tropical rain forest covers the park, which is one of the last refuges of the rosewood Dalbergia nigra, a valuable timber tree. Other species of importance include the monotypic genus Paratecoma peroba and Caesalpinia echinata the 'pau-brasil' (redwood or peach wood), from which the country got its name.

NOTEWORTHY FAUNA   Mammals, surviving in this park and typical of the once extensive tropical forest of the Brazilian Atlantic coast include several species rated as 'endangered' (E), 'rare' (R) and 'vulnerable' (V) in the Red Data Book, as well as others of great interest, namely brown howler monkey Alouatta fusca (= guariba), woolly spider monkey Brachyteles arachnoides (E), maned sloth Bradypus torquatus (K), giant armadillo Priodontes giganteus (V), La Plata otter Lutra platensis (E), jaguar Panthera onca (V), tapir Tapirus terrestris and collared peccary Tayassu tajacu. Birds include solitary tinamou Tinamus solitarius, ornate and black-hawk-eagles Spizaetus ornatus and tyrannus, red-billed curassow Crax blumenbachii (E), black-fronted piping guan Pipile (= Aburria) jacutinga, blue-checked parrot Amazona brasiliensis rhodocorytha, channel-billed toucan Ramphastos vitellinus ariel, and the seed-finches Oryzoborus crassirostris and angolensis.

ZONING             None

DISTURBANCES OR DEFICIENCIES Indian settlements remain in 5% of the park, near the coast, but plans are under way for relocation. Insufficient staff and infrastructure remain a problem.

TOURISM          Good access road from the Vitória-Salvador highway on an 11 km paved road to the administrative unit. Access by boat to the beaches from Porto Seguro, a 4-5 hour journey via Ponto de Caraiva and Cabo Corumbá. Two small airstrips.
SCIENTIFIC RESEARCH: None

SPECIAL SCIENTIFIC FACILITIES: No information

PRINCIPAL REFERENCE MATERIAL: None listed

STAFF: Administrator and assistant together with 8 park rangers.

BUDGET: No current information, but quoted as U.S. $9,400 in 1971 U.N. List

LOCAL PARK ADMINISTRATION: Administração do Parque Nacional de Monte Pascoal,
Edifício Suerdick, Av. Estados Unidos No. 14, 4º andar-s405/407, 40.000
Salvador - Bahia.
NAME São Joaquim National Park
(to be known eventually as Pedra Furada National Park)

TYPE NP BIOTIC PROVINCE 3.7.5/3.6.6

LEGAL PROTECTION Protected against lumbering, clearing for cattle raising and clearing for agriculture.

DATE ESTABLISHED 6 July 1961, by Federal Decree No. 50,992

GEOGRAPHICAL LOCATION 175 km SW of Florianópolis in the south of Santa Catarina State: S 28°04'-28°19'; W 49°22'-49°39'

ALTITUDE Highest point is about 1800 metres

AREA 18,000 ha

LAND TENURE All land privately owned

PHYSICAL FEATURES An area of the southern Brazilian plateau which is dissected by deep valleys. Geologically derived from decomposed basalt overlain by sandstones, also some clays of glacial origin known as the Tubarão series. These occur beneath the basalt flows. An annual winter snowfall, though seldom lasting more than a few days, creates exceptional conditions in an otherwise tropical regime.

VEGETATION The lower areas in the valleys have subtropical forest. Above this is a zone of candelabra or Paraná pine Araucaria angustifolia. Grassland dominates the plateaus.

NOTEWORTHY FAUNA Mammals are representative of both the high Brazilian plateau and forest, and include giant anteater, Myrmecophaga tridactyla (rated as 'vulnerable' in the Red Data Book), La Plata otter Lutra platensis (an 'endangered' species) and pampas deer Ozotoceros bezoarticus (the conservation status of which is uncertain). Birds include the ornate hawk-eagle Spizaetus ornatus, which is regarded as a threatened species in Brazil though it has a very extensive range in the neotropical forest region.

ZONING None

DISTURBANCES OR DEFICIENCIES Many lumber mills are present in the area

TOURISM Great tourist potential since the landscape is remarkable, but apparently as yet totally undeveloped.

SCIENTIFIC RESEARCH None

SPECIAL SCIENTIFIC FACILITIES No information

PRINCIPAL REFERENCE MATERIAL None listed

STAFF No recent information. The second edition of the U.N. List (1971) mentioned a staff of two.

BUDGET No information

LOCAL PARK ADMINISTRATION Parque Nacional de São Joaquim, Rua do Príncipe, 192, Joinville 89.200, Santa Catarina.
NAME  Itatiaia National Park
TYPE  NP  BIOTIC PROVINCE  3.7.5
LEGAL PROTECTION  Total
DATE ESTABLISHED  14 June 1937 by Federal Decree No. 1.713 (the oldest National Park in Brazil).

GEOGRAPHICAL LOCATION  On the border of the Rio de Janeiro and Minas Gerais States, 150 km NW of the city of Rio de Janeiro: S 22°19'-22°45'; W 44°45'-44°50'
ALTITUDE  700-2787 metres
AREA  12,000 ha
LAND TENURE  11,943 ha are government land

PHYSICAL FEATURES  The park comprises part of the Serra da Mantiqueira, a major eruptive massif, predominantly composed of alkaline nephelitic rocks of igneous origin dating from the upper Cretaceous. The landscape is mountainous with deep valleys, impressive peaks and huge boulders and rocks scattered over the high plateaus. Since the park occupies a summit ridge, it includes a few lakes and marshes at lower levels on either side. The Pico do Itatiaiucu is the highest point and forms the summit of the Agulhas Negras.

VEGETATION  Altitudinally zoned with tropical rain forest rich in lianas, Icichna, ferns, orchids and begonias up to 1600 m. Pine forests of Araucaria grow above this in the valleys up to 2000 m. These upper forests are also rich in species. At the highest altitudes the montane flora comprises over 100 endemics including the monotypic Itatiaia cleistoptalae Ule, which is placed in the Melastomataceae.

NOTEWORTHY FAUNA  Includes a number of Red Data Book species in the 'endangered' (E), 'rare' (R) and 'vulnerable' (V) categories, as well as many others of interest; for example, among the mammals, the woolly spider monkey Brachyteles arachnoides (E), giant anteater Myrmecophaga tridactyla (V), lesser anteater Tamandua tetradactyla, maned sloth Bradypus torquatus (R), crab-eating raccoon Procyon cancrivorus, coati Nasua nasua, La Plata otter Lutra platensis (E), and ocelot Felis pardalis (V). Birds present include solitary tinamou Tinamus obsolens, ornate and black hawk-eagles Spizaetus ornatus and tyrannus, turkey vulture Cathartes aura ruficollis, king vulture Sarcoramphus papa, black-fronted piping guan Pipile (= Aburria) jacutinga, red-capped parrot Pionopsitta pileata, toco toucan Ramphastos toco, short-tailed ant thrush Chaimea campaniaca brevicauda and magpie tanager Cissopis leveriana. Reptiles include jararacá viper Bothrops jararaca, coral snake Micrurus corallinus, iguanid lizard Tropidurus torquatus and snake-necked tortoise Hydromedusa maximiliani. Amphibians include the blacksmith tree-frog Hyla faber.

DISTURBANCES OR DEFICIENCIES  Proper boundary markings are lacking and a number of private properties, including three hotels, adjoin the park headquarters. A television tower and radio masts have been erected within the park.
TOURISM  Many visitors, especially in June and in December-March. Facilities include hotels, huts, trails and a museum. Good mountain climbing.

SCIENTIFIC RESEARCH  Studies date back to 1822 and include investigations of flora and geology of the area.

SPECIAL SCIENTIFIC FACILITIES  Laboratory facilities are available at the Itatiaia biological station which belongs to the Botanical Garden of Rio.

PRINCIPAL REFERENCE MATERIAL  An extensive bibliography exists, including 8 bulletins published by the laboratory.


STAFF  Administrator and assistant together with 27 park rangers and 72 other workers.

BUDGET  No current information, but quoted as U.S. $ 28,900 in 1971 U.N. List

NAME  Caparaô National Park

TYPE  NP

BIOTIC PROVINCE  3.7.5

LEGAL PROTECTION  Total

DATE ESTABLISHED  24 May 1961 by Federal Decree No. 50,646

GEOGRAPHICAL LOCATION  150 km almost due west of Vitória, Espírito Santo State, but mainly in Minas Gerais State: S 20° 22’-20 40’; W 41° 40’-42 00’

ALTITUDE  997-2890 metres

AREA  10,435 ha

LAND TENURE  5000 ha is government owned but protection and supervision extends to the whole area and the remaining land is being acquired.

PHYSICAL FEATURES  The Serra do Caparâo contains what are in fact the northernmost peaks of the great coastal range, the Serra do Mar. The highest point is the Pico da Baneira. Geologically the terrain consists of gneissic granites of pre-cambrian age, often exposed in bare rock faces.

VEGETATION  Moisture-laden winds deflected over the Serra do Mar result in heavy rainfall and rain forest on the eastern Espírito Santo slopes; on the western Minas Gerais flank there is also rain forest (but without the oceanic influence) up to 1800 m, giving way up to 2400 m to open montane grassland, scrub and wooded areas between exposed rocky outcrops. Above 2400 m is an alpine community of species of Ericaceae, Melastomaceae and Myrtaceae.

NOTEWORTHY FAUNA  The mammals recorded include black-pencilled marmoset Callithrix penicillata, capuchin monkey Cebus libidinosus (= apella?), woolly spider monkey Brachyteles arachnoides (classified as 'endangered' in the Red Data Book), nine-banded armadillo Dasypus novemcinctus, margay Felis wiedi and brocket Mazama americana. Birds include the small-billed tinamou Crypturellus parvirostris, saffron toucanet Andigena (= Baillonius) balloni, and red-ruffed fruit crow Pyroderus scutatus.

ZONING  None

DISTURBANCES OR DEFICIENCIES  Boundaries of the area are not clearly defined; tourist and administrative facilities are inadequate as is the staff.

TOURISM  Accommodation available 21 km from the park at Presidente Soares. The Pico de Bandeira has a mountain hut for climbers. Road access to the area is now good and tourism is expected to increase.

SCIENTIFIC RESEARCH  No information

SPECIAL SCIENTIFIC FACILITIES  No information

PRINCIPAL REFERENCE MATERIAL  None listed

STAFF  Administrator and assistant, 2 assistants with definition of the area and 25 other workers.

WDNP  IUCN © 1977 (1)F  Code: BRA.4.4
BUDGET  No recent information, but was quoted as U.S. $ 14,000 in 1971 (U.N. List, second edition).

LOCAL PARK ADMINISTRATION  Administracao Parque Nacional Caparaã£, Rua Silviano Brandão s/no. Caixa Postal No. 17, 36.836 Presidente Soares, Minas Gerais.
BRAZIL

NAME Aparados da Serra National Park

TYPE NP

BIOTIC PROVINCE 3.3.1/3.7.5

LEGAL PROTECTION Total

DATE ESTABLISHED 17 December 1959 by Federal Decree No. 47,466 and altered by Federal Decree No. 70,296 of 17 March 1972

GEOGRAPHICAL LOCATION 120 km NE of Porto Alegre, Rio Grande do Sul State, on the border with Santa Catarina State: S 29°15' - 29°25'; W 50°00' - 50°15'

ALTITUDE 50 - 900 metres

AREA 10,250 ha

LAND TENURE 3550 ha government land, the remainder being under process of expropriation through the Instituto Nacional de Colonização e Reforma Agrária.

PHYSICAL FEATURES The southern Brazilian plateau and the coastal range of the Serra do Mar terminate abruptly in the area of this park, where cliffs of up to 500 m with vertical rock faces expose the basalt flows of the plateau region. The top of the plateau is gently undulating with many small pools and lakes in which vegetational succession is forming peat bogs. The impressive canyons or "itaimbés" are a feature of the area, that of Itaimbézinho having waterfalls 400 m high plunging from its perpendicular sides.

VEGETATION Low-lying sectors are covered with Atlantic coastal forest while the Paraná pine Araucaria angustifolia is found on the plateau, this being its southernmost limit. Some of the plateau is rich in species of Myrtaceae and other areas are open grassland. The vegetation has similarities to that of the Patagonian mountains and includes species such as Gunnera.

NOTEWorthY FAUNA Indicative of the ecotone between the plateau and the southern coastlands, the mammals include a number of species categorized as 'vulnerable' (V) or 'endangered' (E) in the Red Data Book or otherwise of zoogeographical interest. They include - opossum Didelphis marsupialis aurita, giant anteater Myrmecophaga tridactyla (V), giant armadilloPriodontes giganteus (V), seven-banded armadilloDasypus septemcinctus, La Plata otter Lutra platensis (E), giant otterPteronura brasiliensis (E), pampas cat Felis colocolo pajero and pampas deer Ozotoceros bezoarticus. Birds include the chimango caracaraMilvago chimango, azure jay Cyanocorax caeruleus and rufous oven-birdFurnaria rufa. Reptiles include the urutú viper Bothrops alternatus and snake-eating snakeRachidelsus (Cletia) brazili.

ZONING None

DISTURBANCES OR DEFICIENCIES Private properties within the park; some invasions by cattle. Visitor and administrative facilities are lacking, also staff.

TOURISM The canyon of Itaimbézinho is the main attraction and has a restaurant for tourists. Access is 126 km by surfaced road from Porto Alegre to São Francisco de Paula, thence by a good earth road 60 km to the park gates.
SCIENTIFIC RESEARCH  Some research underway but not on an organized basis

SPECIAL SCIENTIFIC FACILITIES  None

PRINCIPAL REFERENCE MATERIAL  None listed

STAFF  Administrator and 2 park rangers

BUDGET  No recent information, but quoted as U.S. $ 36,600 in 1971 U.N. List

LOCAL PARK ADMINISTRATION  Administração do Parque Nacional Aparados da Serra, Rua Andrade Neves No. 90, 1º andar, 90.000 Porto Alegre, Rio Grande do Sul.
BRAZIL

NAME  Serra dos Órgãos National Park

TYPE  NP

LEGAL PROTECTION Total

DATE ESTABLISHED 30 November 1939 by Law Decree No. 1.822

GEOGRAPHICAL LOCATION Centre of Rio de Janeiro State, 55 km NW of the centre of the city: S 22°24'-22°32'; W 42°59'-43°06'

ALTITUDE 410-2263 metres

AREA 10,000 ha

LAND TENURE 5000 ha government land: the area falls within the jurisdiction of three municipalities - Majé, Petrópolis and Teresópolis.

PHYSICAL FEATURES The Órgãos range in which the park is located consists of granite and gneiss and includes the famous Dedo de Deus (Finger of God) peak. Mean temperature is 11°C, with an annual rainfall of 1700-3600 mm above 800 m in altitude.

VEGETATION Luxuriant and varied due to the wide range of altitude. Lower levels have tropical rain forest rich in lianas, ferns, epiphytes (including orchids and Bromeliads). The upper slopes have montane grasslands, a notable species being the endemic Prepusa hookeriana (Cgentianaceae) which occurs on the peak of Pedro do Sino. Brush and small trees occur in sheltered areas in the montane zone, the trees being covered with lichens and mosses.

NOTEWORTHY FAUNA Mammals include philander opossum Caluromys philander, opossum Didelphis marsupialis, masked titi monkey Callicebus personatus, woolly spider monkey Brachyteles arachnides (classified as 'endangered' in the Red Data Book), maned sloth Bradypus torquatus (rated as 'rare'), paca Cuniculus paca, agouti Dasyprocta aguti and La Plata otter Lutra platensis (another 'endangered' species). Birds include solitary tinamou Tinamou solitarius, yellow-legged tinamou Crypturillus noctivagus, ornate hawk-eagle Spizaetus ornatus, mantled hawk Leucopternis polionota, spot-winged wood-quail Odontophorus capueira and black-fronted piping guan Pipile (= Aburria) jacutinga. Reptiles include black and yellow rat-snake Spilotes pullatus, colubrid snake Dryadophis bifossatus and the iguanid lizard Urostrophus vautieri. Amphibians include the horned frog Ceratophrys dorsata.

ZONING None

DISTURBANCES OR DEFICIENCIES Disturbance from campers and excessive tourism

TOURISM Large numbers of visitors, Teresópolis being no distance away and the access road excellent. Facilities include footpaths, cabins, mountain huts, nature trails and a restaurant. Mountaineering is good.

SCIENTIFIC RESEARCH Several studies are in course; investigations date from 1815.
SPECIAL SCIENTIFIC FACILITIES
Laboratory and accommodation

PRINCIPAL REFERENCE MATERIAL
A considerable bibliography exists.

STAFF
Administrator and assistant, 14 park rangers and 61 other workers

BUDGET
No recent information, but quoted as U.S. $ 43,600 in 1971 U.N. List

LOCAL PARK ADMINISTRATION
BRAZIL

NAME Sete Cidades National Park

TYPE NP BIOTIC PROVINCE 3.9.2

LEGAL PROTECTION Total

DATE ESTABLISHED 8 June 1961, by Federal Decree No. 50.744

GEOGRAPHICAL LOCATION Northern Piauí State, about 120 km from the sea near Parnaíba: S 4°05'-4°15'; W 41°30'-41°45'

ALTITUDE 100-300 metres

AREA 6221.48 ha

LAND TENURE Government owned apart from 1200 ha; the rest privately owned but with no occupants.

PHYSICAL FEATURES An area of eroded sandstone formations, of great scenic beauty, resulting in an undulating to broken topography. The sandstones are of Cretaceous age and weather into large blocks of unusual shape and form. The climate is semi-arid with 1200 mm annual rainfall and a mean temperature of 26°C; winds are predominantly east to west.

VEGETATION Grassland savanna and "cerrado" scrub; gallery forest along the rivers containing Amazonian-type palms such as the buriti Mauritia vinifera and others of the north-eastern type such as the carnauba or wax palm Copernica cerifera.

NOTEWORTHY FAUNA Mammals of this the only faunal reserve in Piauí State are characteristic of north-eastern "cerrado", and include ashy opossum Marmosa cinerea, giant anteater Myrmecophaga tridactyla (a species classified as 'vulnerable' in the Red Data Book), lesser anteater Tamandua tetradactyla, punare Cercomys cunicularis, rock cavy Kerodon rupestris, maned wolf Chrysocyon brachyurus (another 'vulnerable' species), jaguarondi Felis yagouaroundi, brocket deer Mazama spp. and pampas deer Ozotoceros bezoarticus. Birds include the greater rhea Rhea americana, red-legged seriema Caralama cristata, picazuro pigeon Columba picazuro, sun parakeet Aratinga solstitialis, banded cotrigua Cotinga maculata, and bearded bell-bird Procnias averano. The fauna is also rich in reptiles, including the great tegu lizard Tupinambis teguixin, as well as amphibians, arachnids and insects.

ZONING None

DISTURBANCES OR DEFICIENCIES Boundaries not yet defined and the park is specially in need of a master plan. Staff, access facilities and visitor facilities are inadequate.

TOURISM Good tourist potential, only catered for at present by one restaurant, some accommodation and campsites. The main visitor season is June-August. Access is either via Piripiri on the Fortaleza-Teresina highway or via Piracuruca, the latter with Piripiri being the two municipalities having jurisdiction in the park area.

SCIENTIFIC RESEARCH None

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SPECIAL SCIENTIFIC FACILITIES
None

PRINCIPAL REFERENCE MATERIAL
None listed

STAFF
Administrator and assistant, 2 fee-collectors and 25 other workers

BUDGET
No recent information, but quoted as U.S. $11,600 in 1971 U.N. List

LOCAL PARK ADMINISTRATION
Administração, Parque Nacional de Sete Cidades,
Caixa Postal 80-Bairro do Jóquei, 64.000 Teresina, PI.
NAME Nova Lombardia Federal Biological Reserve

TYPE NR

BIOTIC PROVINCE 3.7.5

LEGAL PROTECTION Total Total legal protection


GEOGRAPHICAL LOCATION About 50 km NW and inland from Vitória, Central Espirito Santo: S 15°46'-19°55'; W 40°30'-40°35'

ALTITUDE Highest point 850 metres

AREA 4350 ha

LAND TENURE Wholly government owned

PHYSICAL FEATURES A mountainous area formed by the steep slopes of the northernmost bastion of the great coastal range, the Serra do Mar, before the scarp of the Brazilian plateau retreats further inland. The terrain is very broken and the soils shallow on slopes that often attain an angle of 45° or more.

VEGETATION Tropical semi-deciduous rain forest with many species of Orchid and Bromeliad.

NOTEWORTHY FAUNA A well-protected fauna includes more than 60 woolly spider monkeys Brachyteles arachnoides (classified as 'endangered' in the Red Data Book). Among the bird species are solitary tinamou Tinamus solitarius, black-fronted piping guan Pipile (= Aburria) jacutinga, red-capped parrot Pionopsitta pileata, various humming-birds such as the hooded visor-bearer Augastes lumachellus, brown violet-ear Colibri delphinae grunwalti and racket-tailed coquette Discosura longicauda, and the seed-finches Oryzoborus crassirostris and angolensis.

ZONING No information

DISTURBANCES OR DEFICIENCIES No information

TOURISM Access from Vitória via the small town of Santa Teresa. Apparently arrangements exist for collection of fees, but in 1972 it was reported that no visitors are allowed.

SCIENTIFIC RESEARCH No information

SPECIAL SCIENTIFIC FACILITIES No information

PRINCIPAL REFERENCE MATERIAL None listed

STAFF One resident guard was mentioned in 1972 Supplement to 1971 U.N. List, but no up to date information.

BUDGET No current information

LOCAL PARK ADMINISTRATION Reserve Biológica de Nova Lombardia, Caixa Postal 762, 29.000 Vitória, Espirito Santo.
NAME: Tijuca National Park (Park Nacional Tijuca)

TYPE: NP (National Park)

BIOLOGICAL PROVINCE: 3.7.5

LEGAL PROTECTION: Total


GEOGRAPHICAL LOCATION: Guanabara State, within the city of Rio de Janeiro; S 22°55'-23°00'; W 43°11'-43°19'

ALTITUDE: 100-1021 metres

AREA: 3300 ha

LAND TENURE: 2700 ha government owned

PHYSICAL FEATURES: An area on the slopes of the Tijuca massif, the Cacico da Tijuca, consisting of granitic and gneissic rocks. The landscape is of great beauty and the Park includes the highest point in the State of Guanabara, the Pico da Tijuca, with the famous statue of the Redeeming Christ.

VEGETATION: Rain forest and rehabilitated forest of considerable interest since it represents reafforestation undertaken since 1862 when the State began to buy back old coffee plantations and reafforest them. These rehabilitated forests occupy about 95% of the area but are almost indistinguishable from natural forests, despite the period of 300 years during which the area was under cultivation. This has been achieved because the replanting was largely confined to local species typical of the coastal region.

NOTEWORTHY FAUNA: This represents a remnant of the coastal forest fauna and is of importance as a study and trial area for faunal rehabilitation. Species now present include the black-pencilled marmoset Callithrix penicillata, golden tamarin Leontopithecus rosalia (a 'highly endangered' Red Data Book species), weeper capuchin Cebus nigritivittatus, woolly spider monkey Brachyteles arachnoides (another 'endangered' species), maned sloth Bradypus torquatus (rated as a 'rare' species), three-toed sloth B. tridactylus, Ingram's tree squirrel Sciurus ingrami, tayra Eira barbara, and Allamand's grison Galictis vittata. Birds include the solitary tinamou Tinamus solitarius, black-fronted piping guan Pipile (= Aburria) jacutinga, channel-billed toucan Ramphastos vitellinus ariel, bare-throated bell-bird Procnias nudicollis and swallow-tailed manakin Chiroxiphia caudata. Reptiles include the jararacá viper Bothrops jararaca, colubrid snake Chironius carinatus, and ground boa Tropidophis pauciquamuis. Amphibians include the horned frog or escuerzo Ceratophrys (= Stombus) boiei, Girard's frog Zacaenus parvulus and dendrobatid frog Dendrophryniscus brevipollicatus.

ZONING: Not yet firmly established

DISTURBANCES OR DEFICIENCIES: These include the need to obtain state control over the Floresta da Tijuca area, the encroachment of the city and the need for control over hotels and restaurants within the area.

TOURISM: Heavy visitor pressure due to closeness to the city. Facilities include 7 access roads, hotel, restaurants, picnic area and nature trails.

WDNP: IUCN © 1977 (1)F

Code: BRA.5.2
SCIENTIFIC RESEARCH  Floral and faunal inventory, basic research on endangered species and programmes of reintroduction of flora and fauna.

SPECIAL SCIENTIFIC FACILITIES  Laboratory and museum

PRINCIPAL REFERENCE MATERIAL

STAFF  Administrator and assistant, 27 park rangers, 30 fiscalization workers and 16 other workers.

BUDGET  No recent information, but quoted as U.S. $ 27,800 in 1971 U.N. List

LOCAL PARK ADMINISTRATION  Administração, Parque Nacional Tijuca, Rua Pacheco Leão 2040, Gávea, 20000 Rio de Janeiro, GB.
BRAZIL

NAME
Poço das Antas Federal Biological Reserve

TYPE
NR

BIOTIC PROVINCE
3.7.5

LEGAL PROTECTION
No information

DATE ESTABLISHED
11 March 1974 by Federal Decree No. 73.792

GEOGRAPHICAL LOCATION
Coastal foothills of Serra do Mar, 120 km east of Rio de Janeiro: S 22°35'; W 42°15'

ALTITUDE
3-250 metres

AREA
3000 ha

LAND TENURE
To be expropriated by the Instituto Nacional de Colonização e Reforma Agrária.

PHYSICAL FEATURES
An area of small valleys and hills, geologically composed of pre-cambrian granites and gneisses with deep latosolitic decomposition into silty sand soils, the valleys having quaternary hydromorphic soils. The area is well drained by rivers and permanent streams. Climate is tropical (type AW of Köppen) with a warm, wet season from October to April and 1-2 months above 23°C. Rainfall comes in June to August from Atlantic airmasses which reduce the average temperatures in the process.

VEGETATION
Ecologically part of the coastal tropical rain forest type, rich in species.

NOTEWORTHY FAUNA
The reserve was declared to protect the last remaining groups of the golden lion tamarin or marmoset Leontopithecus rosalia rosalia (classified as 'endangered' in the Red Data Book), which occur in natural conditions. This species is very close to extinction (although now successfully reintroduced at Tijuca N.P.), with only a few remaining groups still surviving in this area. Other species of note include the woolly spider monkey Brachyteles arachnoides and giant otter Pteronura brasiliensis (both also 'endangered'), marsh deer Blastocerus dichotomus (a 'vulnerable' species) and pampas deer Ozotoceros bezoarticus (classified as 'indeterminate'). Birds include the solitary Tinamou Tinamus solitarius and black-fronted piping guan Pipile (= Aburria) jacutinga.

ZONING
No information

DISTURBANCES OR DEFICIENCIES
Although the reserve has been declared, no steps have yet been taken to implement it.

TOURISM
No information, but presumably not permitted

SCIENTIFIC RESEARCH
Zoological study planned as part of an integral project establishing the "Experimental Centre for the Study of Wild Animals". Work planned on the marmosets and other species mentioned above.

SPECIAL SCIENTIFIC FACILITIES
Centre to be established

WDNP IUCN © 1977 (1)F

Code: BRA.5.4
PRINCIPAL REFERENCE MATERIAL

None listed

STAFF

Wardens will be financed eventually. Research will be undertaken by university students.

BUDGET

No information

LOCAL PARK ADMINISTRATION

Delegacia Estadual do IBDF no Rio de Janeiro, Reserve Biológica Poço das Antas, Rua Pacheco Leão, 2040, Gávea, 20.000 Rio de Janeiro - C.B.
BRAZIL

NAME  Córrego do Veado Federal Biological Reserve

TYPE  NR

BIOTIC PROVINCE  3.7.5

LEGAL PROTECTION  Total


GEOGRAPHICAL LOCATION  Atlantic coast about 30 km south of the border of Espírito Santo with Bahia State: S 18°31'; W 40°14'

ALTITUDE  Not reported but presumably about sea level to not more than 100 metres

AREA  2400 ha

LAND TENURE  Wholly government owned

PHYSICAL FEATURES  A low altitude area on the coast with tertiary sands forming a relatively flat landscape.

VEGETATION  Tropical semi-deciduous rain forest characteristic of the northern parts of Espírito Santo and southern Bahia. The reserve protects some of the last remaining stands of such timber trees as the peroba do campo Paratecoma peroba, rosewood or jacaranda Dalbergia nigra, vinhatico Platymentia reticulata and gonçalves Astronium fraxinifolium.

NOTEWORTHY FAUNA  Like that of the Sooretama Reserve (3.7) the fauna is typical of the "Tupi" zoogeographical grouping, with such species as giant anteater Myrmecophaga tridactyla, maned sloth Bradypus torquatus, and giant otter Pteronura brasiliensis (classified in the Red Data Book as 'vulnerable', 'rare' and 'endangered', respectively). Birds include the solitary tinamou Tinamus solitarius, harpy eagle Harpia harpyja, curassow Crax blumenbachii (another 'endangered' species), black-fronted piping guan Pipile (= Aburria) jacutinga, white-winged cottinga Xipholena atropurpurea, banded cottinga Cotinga maculata, the hook-billed hermit Ramphodon dohrni (one of the rarest and most localized of all humming-birds), also the more widespread racket-tailed coquette Discosura longicauda, seed-finchies Oryzoborus crassirostris and angolensis. The uncommon invertebrate genus Peripatus is represented by several species.

ZONING  No information

DISTURBANCES OR DEFICIENCIES  No information

TOURISM  Presumably not permitted

SCIENTIFIC RESEARCH  No information

SPECIAL SCIENTIFIC FACILITIES  No information

PRINCIPAL REFERENCE MATERIAL  None listed

WDNP  IUCN © 1977  (1)F  Code: BRA.5.5
STAFF
No information; 1 guard listed in 1972 addendum to the 1971 U.N. List

BUDGET
No information

LOCAL PARK ADMINISTRATION
Reserva Biológica Córrego do Veado, Caixa Postal 762, 29.000-Vitória, Espírito Santo.
NAME  Serra Negra Federal Biological Reserve

TYPE  NR

BIOTIC PROVINCE  3.6.7

LEGAL PROTECTION  No information

DATE ESTABLISHED  7 July 1950, as a Forest Reserve by Federal Decree No. 28.348; present status under IBDF Protocol No. 1416 of 17 April 1970.

GEOGRAPHICAL LOCATION  In the south of the narrow 'waist' of Pernambuco State, about 350 km west of Recife: S 8°30'; W 38°

ALTITUDE  Highest point 950 metres

AREA  1100 ha

LAND TENURE  No information

PHYSICAL FEATURES  An "oasis" of forest enjoying a high rainfall, located on an isolated upland block or 'inselberg' formation. The area cannot be much more than about 50 km to the north of the Rio São Francisco, which here carves its way to the Atlantic through a fairly narrow valley. Two of the three townships within whose jurisdiction the reserve falls, Inajá and Floresta, are on tributaries flowing into the São Francisco from the north; the third township, Tacaratu, is about 35 km from the main river at the point where its valley begins to open out.

VEGETATION  The forest is surrounded by "caatinga" thorn savanna and has not yet been studied floristically.

NOTEWORTHY FAUNA  Fauna still under study and no information about it has been released.

ZONING  No information

DISTURBANCES OR DEFICIENCIES  No information

TOURISM  Presumably will not be permitted

SCIENTIFIC RESEARCH  A programme for the investigation of the fauna and flora is to be undertaken by the University of Recife.

SPECIAL SCIENTIFIC FACILITIES  None

PRINCIPAL REFERENCE MATERIAL  None

STAFF  No information

BUDGET  No information

LOCAL PARK ADMINISTRATION  Delegacia Estadual do IBDF em Pernambuco, Av. 17 de agosto No. 1057, Casa Forte, 50.000 Recife, Pernambuco.

WDNP  IUCN © 1977  (1)F  Code: BRA.5.7
NAME: Ubajara National Park  

TYPE: NP  

BIOTIC PROVINCE: 3.9.2  

LEGAL PROTECTION: Total  

DATE ESTABLISHED: 20 April 1959, by Federal Decree No. 45.954, with alterations by Federal Decree No. 72.144 of 26 April 1973.  

GEOGRAPHICAL LOCATION: 200 km west of Fortaleza and about 100 km from the north coast, Ceará State: S 3°48'-3°50'; W 40°52'-40°55'  

ALTITUDE: 300-840 metres  

AREA: 563 ha  

LAND TENURE: Only 63 ha government owned but the whole area is under Federal control and expropriation of about a hundred privately owned properties is in process.  

PHYSICAL FEATURES: Located on the edge of the Ibiapaba sandstone escarpment. The landscape is rugged with many limestone formations eroded to form steep cliffs and impressive caves. Moisture laden winds give an annual precipitation of 1548 mm. Temperatures range from 21°C to 26°C in December, when the wind is mainly from the north-east. Ubajara cave is a large natural feature with interesting rock formations.  

VEGETATION: The summits are dominated by savanna type vegetation or "cerrado" scrub forest. The foothills are covered with thorny scrub of the "caatinga" type typical of Ceará. The steeper slopes in between are densely forested with many Amazonian species.  

NOTEWORTHY FAUNA: Still poorly known though the transition from forest to "caatinga" should offer possibilities for interesting research. Mammals recorded include: opossum Didelphis marsupialis aurita, six-banded armadillo Euphractus sexcinctus, the tree porcupine Coendou villosus, the cavy Cavia aperea, rock cavy Kerodon rupestris, paca Cuniculus paca, agouti Dasyprocta aguti, hoary fox Dusicyon vetulus, crab-eating dog Cerdocyon thous, crab-eating raccoon Procyon cancrivorus and margay Felis wiedi. Birds include many parrots Psittacidae. Reptiles include the jararaca viper Bothrops jararaca, bushmaster Lachesis muta and great tegu lizard Tupinambis teguixin.  

ZONING: None  

DISTURBANCES AND DEFICIENCIES: The area contains a few inhabitants who are all now under federal control. The cave formation has been defaced by tourists.  

TOURISM: Regular visitors throughout the year. Sobral, about 120 km away, is the usual starting point from which there is a main road to Tamandaré and thence by side road to Araticum, 6 km from the park; or the road from Sobral may be followed as far as Ubajara town, from which it is a 9 km walk down the escarp to the cave. The latter is the principal attraction and has never yet been penetrated to its end.  

WDNP IUCN © 1977 (1)F  

Code: BRA.6.1
SCIENTIFIC RESEARCH  Some work in the interior of the cave
SPECIAL SCIENTIFIC FACILITIES  None
PRINCIPAL REFERENCE MATERIAL  None listed
STAFF  Administrator and assistant, 5 park rangers and 18 other workers
BUDGET  No information

LOCAL PARK ADMINISTRATION  Administração do Parque Nacional de Ubajara, Edifício João Cleofas, Av. dos Expedicionários 3442, Caixa Postal 223 e 226, 60.000 Fortaleza, Ceará.
BURMA

AREA 678,031 sq. km

POPULATION 29,512,000 (1974 estimate)

PARKS AND RESERVES LEGISLATION The legislative basis of reserves and game sanctuaries was originally provided by the 'Burma Game Rules' of 1927. No details have been received of the legislation now in force.

PARKS AND RESERVES ADMINISTRATION Responsibility of the Forest Department of the Ministry of Agriculture.

ADDRESS

TOTAL AREA UNDER PROTECTION 230,561 ha

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<tr>
<th>PROTECTED AREAS</th>
<th>TOTAL AREA (ha)</th>
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<td>3.1 Pidaung Game Sanctuary</td>
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<td>3.3 Shwe-U-Daung Game Reserve</td>
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<td>3.4 Minwun Wild Life Sanctuary</td>
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<td>4.1 Kahilu Game Sanctuary</td>
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<td>7.1 Diamond Island (Thamila Kyun or Leik Kyun Wild</td>
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<td>Life Sanctuary)</td>
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</table>

WDNP IUCN © 1975 6(1)F Code: BUR(1).C.1
NAME: Pidaung Game Sanctuary

TYPE: NP

LEGAL PROTECTION: Total

DATE ESTABLISHED: A reserve was originally created in 1913, but the Game Sanctuary was not formally established until 1938, by a Notice dated 8 April.

GEOGRAPHICAL LOCATION: Northern Burma, near the city of Myitkyina, N 25°15' - 25°35'; E 97°04' - 97°20'

ALTITUDE: 147.83 - 1,362.15 metres

AREA: 70,421 ha

LAND TENURE: Public ownership

PHYSICAL FEATURES: Valley of the Irrawaddy river with grassy plains near the river and forested hills.

VEGETATION: Tropical broad-leaved evergreen forest with Terminalia spp., and Shorea spp., together with open areas covered with short grass and known as lwins.

NOTEWORTHY FAUNA: Tiger Panthera tigris tigris, leopard Panthera pardus fusca, Indian elephant Elephas maximus, Malayan sambar Cervus unicolor equinus, Burmese gaur Bos gaurus readel and Burmese banteng Bos banteng birmanicus. The tiger is attributed to the typical or 'Bengal' subspecies, classified in the Red Data Book as 'endangered', but no reliable estimate of the population has been received. The leopard, gaur and banteng belong to species classified as 'vulnerable' and their survival and numbers in the Pidaung Sanctuary need confirmation and assessment, particularly the banteng on which the Red Data Book contains no recent data outside the confines of Indonesia.

ZONING:

DISTURBANCES OR DEFICIENCIES: Three tea plantations in southern part of the reserve. Six local villages have rights to use reserve.

SCIENTIFIC RESEARCH:

PRINCIPAL REFERENCE MATERIAL:


STAFF: Head keeper and 5 assistants

BUDGET:

LOCAL PARK ADMINISTRATION: Divisional Forest Officer, Myitkyina Forest Division, Norther Circle, Myitkyina, Burma.

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BURMA

NAME    Shwezettaw Wild Life Sanctuary

TYPE    NP

BIOTIC PROVINCE  5.6.2.

LEGAL PROTECTION  Total

DATE ESTABLISHED  1940

GEOGRAPHICAL LOCATION  South central Burma, between Irrawaddy river and mountains to west, N 20°06'-20°19'; E 94°33'-94°37'

ALTITUDE  149.35-430.38 metres

AREA  55,270 ha

LAND TENURE

PHYSICAL FEATURES  Hilly. Underlying rock of late Tertiary age

VEGETATION  Dry tropical deciduous forest dominated by 'than' Terminalia oliveri and 'dahat' Tectona hamiltoniana. These forests reach an average height of 9 m. 'Cutch' Acacia catechu is also common but of poor quality.

NOTEWORTHY FAUNA  Barking deer Muntiacus muntjak grandicornis, Burmese thamin or brow-antlered deer Cervus eldi thamin, Burmese gaur Bos gaurus readei and tsaine or Burmese banteng Bos banteng birmanicus. The Burmese thamin is the only race of eldi not classified in the Red Data Book as highly endangered, but this seems to be largely because of the absence of information on its status. The banteng and gaur belong to species rated by the Red Data Book as 'vulnerable' and an assessment of their populations in this Sanctuary would be most desirable.

ZONING

DISTURBANCES OR DEFICIENCIES

SCIENTIFIC RESEARCH

PRINCIPAL REFERENCE MATERIAL


STAFF  2 deputy rangers

BUDGET  Kyats 6500/- annually

LOCAL PARK ADMINISTRATION  Territorial Forest Officer, Forest Department, Minbu, Burma.
BURMA

NAME
Shwe-U-Daung Game Sanctuary

TYPE
NP

BIOTIC PROVINCE
5.6.2

LEGAL PROTECTION
Total

DATE ESTABLISHED
1918

GEOGRAPHICAL LOCATION
Central Burma, east of the Irrawaddy river, N 22°49'-23°05'; E 96°12'-96°21'

ALTITUDE
228.60-1684.93 metres

AREA
32,633 ha

LAND TENURE

PHYSICAL FEATURES
An area of many hills culminating in Shwe-U-Daung peak. The more elevated portions form a watershed from which come a series of spurs and ridges. The climate of the higher regions is cold and bracing, with a welcome absence of insect pests except for a few biting flies. Scenically almost unequalled in Burma.

VEGETATION
Evergreen forests clothe lower slopes of the reserve. They abound with various species of orchid, which are in full bloom in April and May. Upper slopes mainly open grassy areas without tree cover. The grasses are coarse and from 30 cm to 90 cm tall, but the 'kaing' or elephant grass Saccharum sp., which occupies hollows and the upper margins of the forest, is much taller.

NOTEWORTHY FAUNA
Species believed still to occur in the Sanctuary and which it was designed to protect, include the Sumatran rhinoceros Dicerorhinus sumatrensis, as well as other species in the 'endangered' category, the tiger Panthera tigris (the typical race must here be near the south-eastern extremity of its range). Other species or subspecies classified as 'vulnerable' in the Red Data Book, which occur in the Sanctuary are leopard Panthera pardus fusca, Asian elephant Elephas maximus and the Burmese races of banteng and gaur Bos banteng birmanicus and Bos gaurus readei. A subspecies, milne-edwardsi, of the Sumatran or black serow Capricornis sumatraensis is also reported, and it would be of special interest to have details of its population, since the typical subspecies of Sumatra is in the 'endangered' category.

ZONING

DISTURBANCES OR DEFICIENCIES
"From local evidence it seems that since about 1940 at least 17 rhino have been killed ........... it appears that there are now only two rhinos (some believe three) living inside the sanctuary" (Milton, 1959). Poaching by intruders from villages to the south-west and less often the north is reported to continue, despite efforts at protection and the local belief that guardian spirits live on the three main peaks of the Sanctuary.

Logging of teak has been permitted up to at least as recently as 1967, although regulations were prescribed to ensure minimum disturbance to wildlife. Enforcement, however, depends largely on the existing conditions at any one time and is left entirely to the discretion of the Divisional Forest Officer in charge.

WDNP IUCN © 1975 6(1)F

Code: BUR(1).3.3
SCIENTIFIC RESEARCH

SPECIAL FACILITIES

PRINCIPAL REFERENCE MATERIAL


STAFF  Deputy ranger and 2 foresters (i.e. 3 game watchers) for the part of the Sanctuary in the East Katha Forest Division. 1 game watcher (forester) in Mong-mit Forest Division.

BUDGET In addition to staff salaries, about 200-300 kyats are provided annually for repair to inspections paths, and another 100-200 kyats for buying salt for salt-licks.

LOCAL PARK ADMINISTRATION  The section (19,000 ha) situated in the East Katha Forest Division (Northern Circle) is administered by the Deputy-director of that Division; the section (13,630 ha) within the Mong-mit Forest Division (Eastern or Shan State Circle) is similarly administered by the divisional Deputy-director.
BURMA

NAME: Minwun Wild Life Sanctuary

TYPE: NP

Biotic Province: 5.6.2

Legal Protection: Total

Date Established: 1971. A and F Notification No. 259, 26 October

Geographical Location: Central Burma, west of the Irrawaddy river and north-west of Mandalay, N 21°52' - 22°12'; E 95°56' - 96°1½'

Altitude: 76.2 - 405.99 metres

Area: 20,587 ha

Land Tenure:

Physical Features: Low hills

Vegetation: Dry scrub forest

Noteworthy Fauna: Thamin Cervus eldi thamin and barking deer Muntiacus muntjak grandicornis, the former being the Burmese representative of a species of which the two other races, the Manipur and Thailand brow-antlered deer, are very gravely endangered: to what extent its status is appreciably better is not known, although it is not at present listed in the Red Data Book.

Zoning:

Disturbances or Deficiencies:

Scientific Research:

Principal Reference Material:

Staff:

Budget:

Local Park Administration: Deputy-director, Shwebe Forest Division, Northern Circle, Burma.