

2-GEOGRAPHY

Located north of the tropic of Capricorn between 19° and 23° latitude south, 158° and 172° longitude east, New Caledonia is the third largest island in the South Pacific in terms of land area, after Papua New Guinea and the Solomon Islands, covering an area of 18 576 km². It is 500 km from Vanuatu, 1 500 km from Australia, Fiji and the Solomon Islands, and 2 600 km from Papua New Guinea. The New Caledonian **EEZ (Exclusive Economic Zone)** has been estimated at 1.4 million square kilometres.

New Caledonia is made up of a **Mainland**, the Loyalty Islands and dependencies : Isle of Pines, Belep archipelago and the **Chesterfield Islands**. The Mainland is the main island, with land area representing almost 90% of the entire territory. It is characterised by the central mountain range. This mountainous relief, of moderate altitude, stands closer to the east coast than the west coast. It is, in fact, on the steeper eastern side that the highest peaks are found : Mount Panié in the north (1 628 m) and Mount Humboldt in the south (1 618 m). The Isle of Pines (152 km²) and the Belep archipelago have both similar structure and relief to the Mainland's. Surprises and Huon located north of the territory are atoll structures.

A **barrier reef** surrounds the mainland, the distance from the coastline varying from a few kilometres to approximately 65 km, creating a **lagoon** with a depth rarely greater than 40 m.

The Loyalty Islands, located 150 km north-east of Nouméa, with a land area representing barely 10% of the territory, comprise three main islands : Ouvéa (132 km²), Lifou (1 207 km²) and Maré (642 km²), a few nearby islets (Mouli, south of Ouvéa and Dudune, north-west of Maré), very small islands located between Lifou and Maré (Tiga being the largest) and the Beautemps-Beaupré reefs, west of Ouvéa. These islands, plus the Gazelle and Astrolabe reefs, Walpole, Matthew and Hunter islands make up the Loyalty Islands and dependencies. They are former coral atolls, with low-lying and mainly flat relief, at varying altitudes that decrease gradually northwards, and coastlines essentially made of cliffs.

▶ **EEZ (Exclusive Economic Zone)**. Economic zone created around New Caledonia by decree dated February 3, 1978. A 200 nautical mile maritime zone, superior or equal to the territorial waters (whose size varies from 12 to 200 nautical miles; a nautical mile equals 1 852 metres). It covers an area as vast as 1 386 588 km². Inside its EEZ, every State has exclusive economic rights, but cannot refuse free passage to non-threatening ships.

▶ **Mainland**. Oblong piece of land, about 400 km long and 50 km wide, of north-west/south-east orientation and covering a land area of 16 374 km², it is the largest and the most populated island of the New Caledonian archipelago.

▶ **Chesterfield Islands**. A string of islets edging a large coral plateau divided into two vast groups : Chesterfield and Bellona. Located between the Mainland and Australia, they are rarely visited.

▶ **Atoll**. Ring-shaped coral reef, encircling a lagoon. The association of reef and lagoon makes up an atoll, a low-lying island comprising a narrow ring of land and coral surrounding an interior lagoon.

▶ **Barrier reef**. A usually linear strip of coral reef with a specific shape, parallel to the shoreline and separated from the land by a lagoon, as is also the case for Australia's Great Barrier Reef.

▶ **Lagoon**. Expanse of sea water connecting with the open sea only through channels. The lagoon surrounding the Mainland stretches some 800 km on the north-south axis.

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[2] Direction de l'Aviation Civile, données relatives aux distances orthodromiques.

[3] ORSTOM, *Atlas de la Nouvelle-Calédonie et dépendances*, éditions de l'Office de la recherche scientifique et technique d'Outre-Mer, Paris, 1981.

[4] Décret n°95-454 du 25 avril 1995 portant création de la commune de Kouaoua en Nouvelle-Calédonie, JONC n°7065 du 9 mai 1995.

[5] Arrêté n°588 du 5 mai 1995 redéfinissant les limites territoriales de la commune de Canala du fait de la création de la commune de Kouaoua, JONC n°7069 du 6 juin 1995.

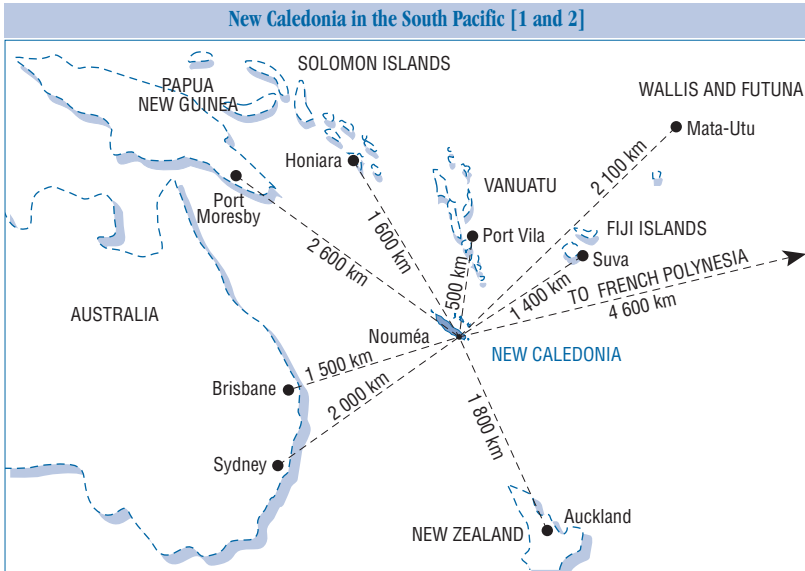
[6] Direction des Infrastructures, de la Topographie et des Transports Terrestres (DITTT), Nouméa.

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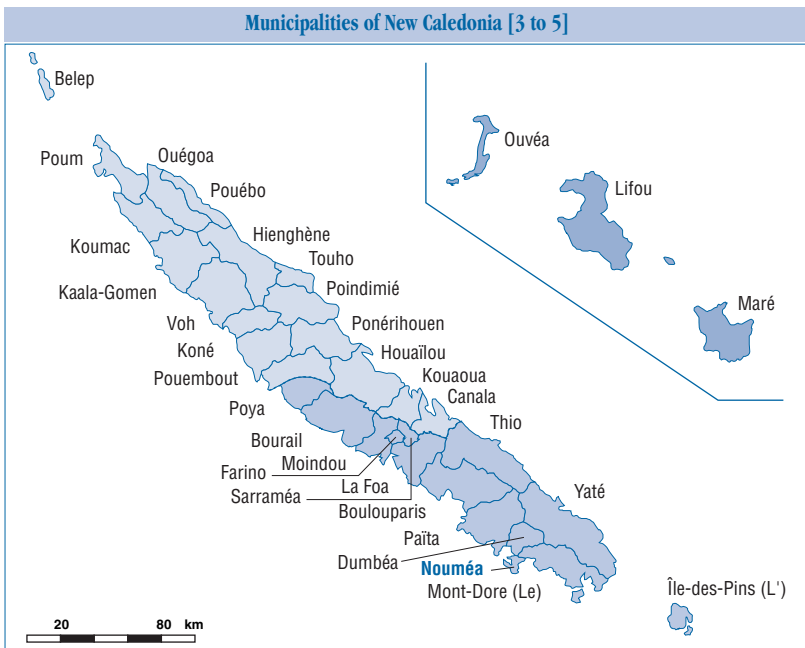
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2.1 PHYSICAL GEOGRAPHY



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Land area and highest points of New Caledonia's municipalities* [6 and 7]

	Land area	Altitude (a)		Land area	Altitude (a)		Land area	Altitude (a)			
01	Belep	69.5	283	12	Koumac	550.0	823	23	Ponérihouen	707.3	1 330
02	Boulouparis	865.6	1 441	13	La Foa	464.0	1 058	24	Pouébo	202.8	1 406
03	Bourail	797.6	1 438	14	Lifou	1 207.1	104	25	Pouembout	674.3	1 134
04	Canala	438.7	1 098	15	Maré	641.7	138	26	Poum	469.4	412
05	Dumbéa	254.6	1 250	16	Moindou	321.9	1 098	27	Poya	845.8	1 508
06	Farino	48.0	701	17	Mont-Dore (Le)	643.0	825	28	Sarraméa	106.4	1 010
07	Hienghène	1 068.8	1 628	18	Nouméa	45.7	167	29	Thio	997.6	1 618
08	Houaïlou	940.6	1 444	19	Ouvéa	656.8	1 347	30	Touho	283.0	1 069
09	Île-des-Pins (L')	152.3	262	20	Ouvéa	132.1	46	31	Voh	804.9	1 122
10	Kaala-Gomen	718.2	1 090	21	Païta	699.7	1 618	32	Yaté	1 338.4	1 501
11	Koné	373.6	1 014	22	Poindimié	673.1	1 385	33	Kouaoua	383.0	1 058

* The code used for each municipality corresponds to the last two figures of the Official Geographic Code of INSEE (French National Institute of Statistics and Economic Surveys), made up of 5 digits, the first three ones "988" being common to the 33 municipalities. (a) Highest point.

Units : km², metre

2-GEOGRAPHY

The road network open to public traffic in New Caledonia covered 5 622 kilometres in 2006.

46% of the roads are in the Northern province, 40% in the Southern province and 14% in the Loyalty Islands. Three-quarters (75.9%) of the New Caledonian road network is made of local roads (79% of them being **municipal roads** and urban streets, 21% **rural lanes**), 14% are **provincial roads** and 10% **territorial roads**.

With the exception of the Yaté-Thio section, the road goes all the way around the Mainland, providing easy driving the length of the west coast (from Nouméa to Poum) and the east coast (from Ouégoa to Thio). Six saddle roads cross the Mainland, linking the west and east coasts over the central mountain range.

Territorial and provincial roads are sealed, while most of the local roads are still unsealed.

The road network has undergone significant improvements in the past fifteen years. However, the increased traffic and weights transported, plus the heavy rains and particular climate in New Caledonia noticeably damage and weaken the roads, which regularly require significant repairs.

The four-lane highway between Nouméa and Tontouta airport, currently under construction, will improve access to the capital and the international airport (located in the municipality of Païta).

▶ **Municipal roads.** Roads at least 20 metres wide, they provide access to places of municipal interest and are maintained by local municipalities.

▶ **Rural lanes.** Roads between 10 and 20 metres wide, they provide links from territorial, provincial and municipal roads to sites without direct access.

▶ **Provincial roads.** Construction and maintenance of these roads are the responsibility of the provinces. The Northern province has 450 km of road, the Southern province 285 km, and the Loyalty islands province 44 km. Expressways provide links between the four municipalities that make up Greater Nouméa: Eastern expressway (VDE) between Nouméa and Mont-Dore, Western expressway (VDO) between Nouméa and Dumbéa, for its first section, and between Dumbéa and Païta for the second section.

Each of the Loyalty Islands (Ouvéa, Lifou and Maré) has a provincial road.

▶ **Territorial roads.** Construction and maintenance of these roads are the responsibility of New Caledonia. There are four such roads :

- RT1 (401 km), runs along the west coast from Nouméa to the left bank of the Néboué river (north of Koumac) ;
- RT2 (21 km), links the aerodrome at Wanabam to the entrance of the port at Wé, on Lifou Island ;
- RT3 (145 km), from the intersection on RT1 north of Bourail to the intersection of the Koné-Tiwaka road (north of Poindimié), it links the west coast to the east coast, along which it runs for some kilometres ;
- RT4 (8 km, 3 km of which are unsealed), starting at the intersection on RT1 north of Poya, it links up with Népoui.

SOURCES

[1] Direction des Infrastructures, de la Topographie et des Transports Terrestres (DITTT), Service Topographique, Nouméa.

[2] Annexe : tableau récapitulatif des distances kilométriques de mairie à mairie sur la Grande-Terre, JONC n°7547 du 22 mai 2001.

2.2 ROAD NETWORK

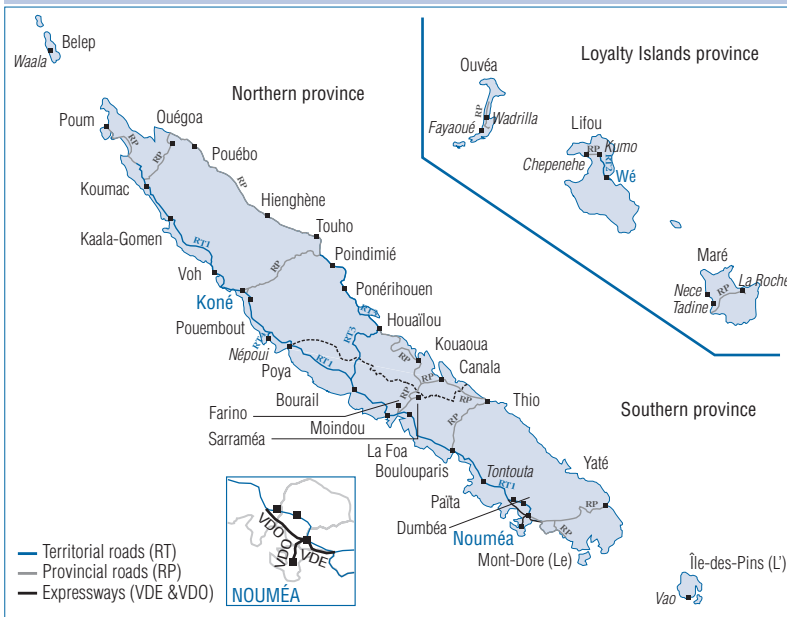
Road network by type and province* [1]

	Territorial roads	Provincial roads	Local roads		Total road network
			Municipal roads and urban streets	Rural lanes	
Loyalty islands province	21	44	474	233	772
Northern province	326	450	1 404	401	2 580
Southern province	228	285	1 498	258	2 270
Nouvelle-Calédonie	575	778	3 376	892	5 622

* Network situation beginning of 2006; only Maré and Ile-des-Pins figures date back to 1998.

Unit : km

Inventory of major roads in New Caledonia at January 1, 2006 [1]



Distances in kilometres between 21 municipalities of New Caledonia [1 and 2]

Unit - Km	Boulouparis	Bourail	Canala	Hienghène	Houailou	Kaala-Gomen	Kouaoua	Koumac	La Foa	Nouméa	Ouvéa	Poindimié	Ponérihouen	Pouébo	Poum	Poya	Thio	Touho	Voh	Yaté
92																				
84	103																			
307	218	252																		
157	70	102	150																	
285	192	296	157	248																
197	105	209	130	161	87															
100	110	45	213	63	302	215														
303	211	315	138	267	19	106	321													
37	56	57	270	120	248	161	63	267												
83	175	167	390	240	368	280	183	386	120											
347	254	328	99	249	62	149	311	43	310	430										
233	144	177	74	76	172	85	139	191	196	316	173									
202	113	147	105	45	203	115	108	221	165	285	203	31								
367	278	311	60	210	97	186	273	78	330	450	39	134	165							
362	270	373	181	326	77	165	379	59	325	445	86	249	280	121						
139	47	150	177	103	145	58	157	164	102	222	207	132	146	238	223					
47	137	37	288	138	330	242	81	348	82	130	386	214	183	348	407	184				
262	173	206	45	105	172	85	168	191	225	345	144	29	60	105	226	133	243			
231	139	243	164	194	53	34	249	72	195	314	115	119	149	150	131	92	276	119		
145	237	229	452	302	429	342	245	448	182	79	492	378	347	512	507	284	192	407	376	

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Though located in the intertropical zone, New Caledonia has a relatively temperate climate. According to **Météo France**, average annual temperatures vary from 22 to 25 degrees Celsius. Since 1990, the highest annual average temperature was recorded at Pouébo in 1998 (25.2°C) and the lowest at La Montagne aux Sources in 1994 (17.7°C). Absolute minimum and maximum temperatures were recorded respectively at Bourail (2.3°C) and at Tontouta (38.1°C).

Average annual **humidity** is between 73% and 81%, the highest rate was recorded at Ouanaham (83% in 1999 and 82% in 1998).

Annual rainfall, although irregular through the year, is heavier on the windward east coast than on the leeward west coast. While Yaté recorded 4 954 mm of rain in 1990 and 4 254 mm in 1996, Koumac holds its own record with only 364 mm of rain in 1993 and 457 mm in 1994. In 2005, the average rainfall over the whole territory reached 1 452 mm. Koumac broke the record of sunshine in 1993, with 2 893 hours. With 2 586 hours, Nouméa had its sunniest year in 2005.

New Caledonia's four-season climate is influenced by its geographic isolation, the configuration of the Mainland's relief, and the **alizé trade winds**. The hot season, from December to March, is the rainy and **cyclone** season. Over the last ten years, New Caledonia was hit by several tropical cyclones, among them : Beti in 1996, Franck in 1999, devastating Erica in 2003 and Kerry at the beginning of 2005. In April and May, the transitional season, rainfall and temperatures decrease slightly. Then from June to August comes the cool season, with relatively heavy rainfall in June and "westerly hits". The September-November period is the dry season, with the trade winds blowing almost constantly ; **bush fires** are a danger during this time.

▶ **Météo France**. A State administrative establishment, the New Caledonia/Wallis and Futuna Inter-regional Board employed 87 people as at December 31, 2005, at various locations :

- Nouméa (one observation station, a radiosonde station, a forecasting and communications centre, and the administrative offices,
- Inland and on the islands (three observation stations at Tontouta, Koumac and on Lifou,
- Wallis and Futuna (two observation stations).

New Caledonia's climatological network comprises 5 synoptic stations, 46 automated stations (32 real time and 14 delayed) and 46 volunteer posts, providing 97 different measuring points over the entire territory.

▶ **Humidity (relative humidity)**. This is the ratio between the quantity of water vapour actually in the air and the absorption capacity of air at a given temperature.

▶ **Alizé trade winds**. Prevailing and regular winds in intertropical regions, resulting from anticyclones and blowing over nearly a third of the planet, from subtropical high pressure zones towards equatorial low pressure zones, from the north-east in the northern hemisphere and from the south-east in the southern hemisphere.

▶ **Cyclone (tropical cyclone)**. Called depression or disturbance in the temperate and polar latitudes. Strong, violent winds whirling around atmospheric low pressure centres, rotating anticlockwise in the northern hemisphere and clockwise in the southern hemisphere, accompanied by torrential rain.

▶ "Westerly hits". Stormy winds blowing from the west, coming from polar disturbance cold fronts that cross the Tasman Sea and reach the territory from time to time.

▶ **Bush fires**. See 2.5.

SOURCES

[1] Météo France, Direction Interrégionale de Nouvelle-Calédonie et de Wallis et Futuna.

Météo France, Direction Interrégionale de Nouvelle-Calédonie et de Wallis et Futuna, *Résumé Climatologique Annuel (2005)*.

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SEE ALSO

Météo France, Direction Interrégionale de Nouvelle-Calédonie et de Wallis et Futuna, *Rapport d'activité*.

Météo France, Direction Interrégionale de Nouvelle-Calédonie et de Wallis et Futuna, *Cyclone tropical "Beti" 23-29 mars 1996*.

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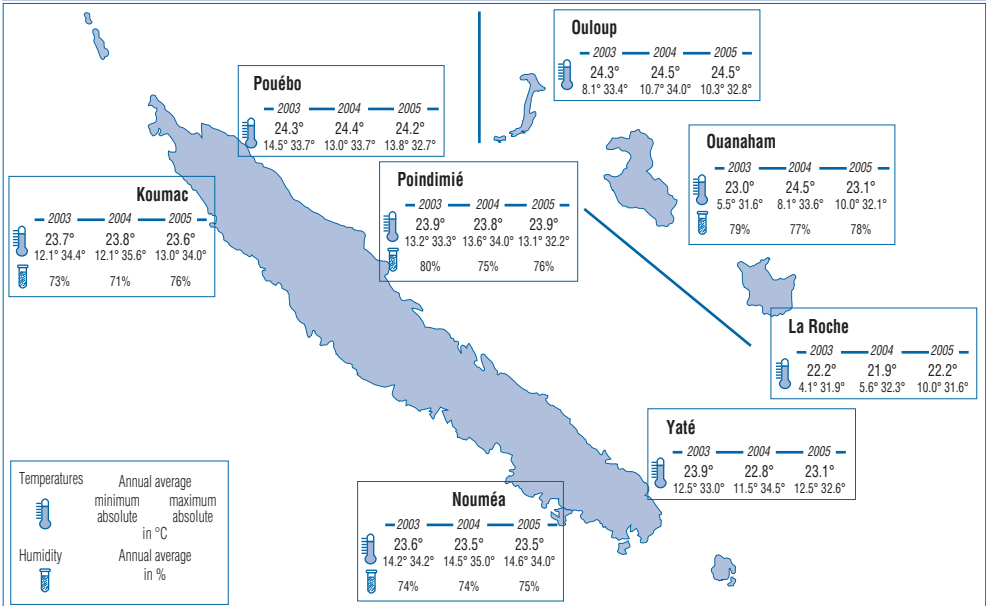
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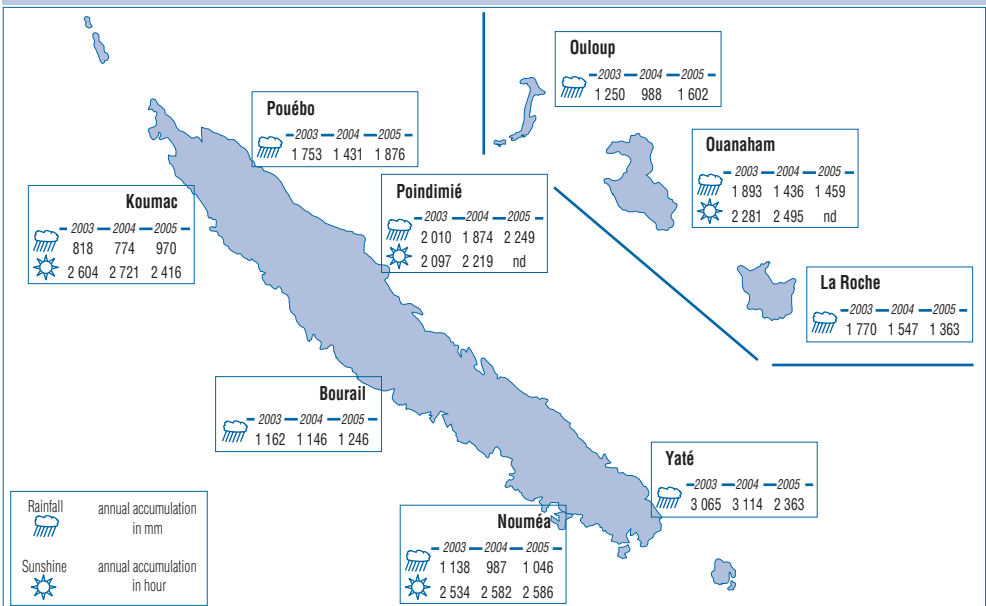
Major cyclones and tropical depressions having affected New Caledonia since 1992 [1]

	Type	Name		Type	Name
March 4-5, 1992	Cyclone	Esau	January 21, 1999	Cyclone	Dani
March 10-11, 1992	Cyclone	Fran	February 12, 1999	Strong tropical depression	Ella
January 5-6, 1994	Cyclone	Rewa	February 20-21, 1999	Cyclone	Frank
January 26-27, 1994	Cyclone	Sarah	March 6-7, 2002	Strong tropical depression	Des
February 27, 1994	Cyclone	Théodore	January 29, 2003	Cyclone	Béni
March 27-28, 1994	Strong tropical depression	Usha	March 13-14, 2003	Cyclone	Erica
March 23-29, 1996	Cyclone	Béti	February 27, 2004	Cyclone	Ivy
January 7-8, 1997	Cyclone	Drena	January 8-9, 2005	Cyclone	Kerry
March 23-24, 1998	Cyclone	Yali	January 31, 2006	Cyclone	Jim

Temperatures and humidity [1]



Rainfall and sunshine [1]



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In terms of **biodiversity**, New Caledonia is one of the four most diverse territories in the world. Thanks to its geological history (separation from the Australian land mass about 80 million years ago) and to **peridotites** (particular rocks that covered a part of New Caledonia 37 million years ago), the fauna and flora have evolved in a state of isolation, forming a unique, rich and original environment.

There are five main **ecosystems** : **mangrove swamp**, **savannah**, **maquis**, **dense rain forest**, and **dry forest**. The percentage of endemic species is very high and strict measures have been implemented, and continue to be developed in an attempt to protect species threatened by poaching, fire, mining, chemical and organic pollution, and the introduction of new species. These measures consist of research work, species inventory, public awareness, establishment of regulations and reserves, restocking and replanting land and marine areas.

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There are 4 000 known species of New Caledonian flora, 75% of which are **endemic**. Among the species found in the forest, only about 20 are exploited : **niaouli**, with antiseptic properties, along with various species of wood like **kwila**, **blue wood**, **tamanou**, **kaori**, **sandalwood** for use in carpentry, cabinet making, and the perfume industry.

Land-base fauna comprises 5 000 known species (lizards, geckos, snakes, tortoises, fruit bats...) of which 90% are arthropods (insects, fresh water prawns...), and also land birds, including New Caledonia's mascot, the **kagu**, **parakeets**, the **green pigeon** and the **notou**. Marine fauna comprises around 1 700 species of fish, 4 species of turtles and 6 500 types of sea molluscs, of which certain **cones** and **porcelains** are much sought-after by collectors.

Many species remain undiscovered in New Caledonia. Of all the international conventions protecting nature, only the **Washington Convention (1973)**, regarding trade in threatened species of wild flora and fauna, was made applicable to New Caledonia, in 1982.

► **Biodiversity**. All genes, species and ecosystems on the planet, i.e. "all potential life forms".

► **Ecosystem**. Basic ecological unit formed by the physical environment (biotope) and the animal and plant life living there (biocoenosis). In New Caledonia, there are five :

- **mangrove swamp** : mainly found on the west coast, formed by mangroves growing in the calm, protected coastal mud, covering 200 km², or 50% of the coast length. It shelters particular species and plays a major ecological role : trapping the sediments brought down by the rivers, acting as both a nursery and a natural water purification plant.
- **savannah** : covering approximately 30% of the territory, mainly found in the north and west of the Mainland. These grasslands are vast prairies with little or no trees, that have replaced primary ecosystems (dry forest and dense rain forest) destroyed by man.
- **maquis** : shrub-like vegetation comprising bushes, mainly found in the south-east, covering 30% of the territory. It only grows on the "red earth" resulting from peridotites, replacing rain forest after fires. 90% of the plant species found here are endemic.
- **dense rain forest** : found along the length of New Caledonia in the central mountain range, in various forms depending on the nature of the terrain and climate. It covers 21% of the territory.
- **dry forest (or sclerophyll)** : only found on the west coast, at altitudes under 300 m, in areas of little rainfall. Only a few scattered zones remain from the original land area (about 1%), covering 4 500 km² of the highest importance as 262 endemic plants grow in this environment. Dry forest is the most endangered ecosystem in New Caledonia and a conservation programme for the whole of New Caledonia has been in place since 1999.

► **Endemic**. Describes a species found only in a given region, a given country.

SOURCES

[1] Écologie en Nouvelle-Calédonie, CTRDP, Nouméa, 1987.

[2] Services Provinciaux (Nord, Sud et îles Loyauté), données relatives aux espèces connues en Nouvelle-Calédonie.

[3] Gouvernement de la Nouvelle-Calédonie, *Avant-projet du Schéma d'aménagement et de développement de la Nouvelle-Calédonie*, groupe environnement (État des lieux), 2005.

Province Nord : www.province-nord.nc

Province Sud : www.province-sud.nc

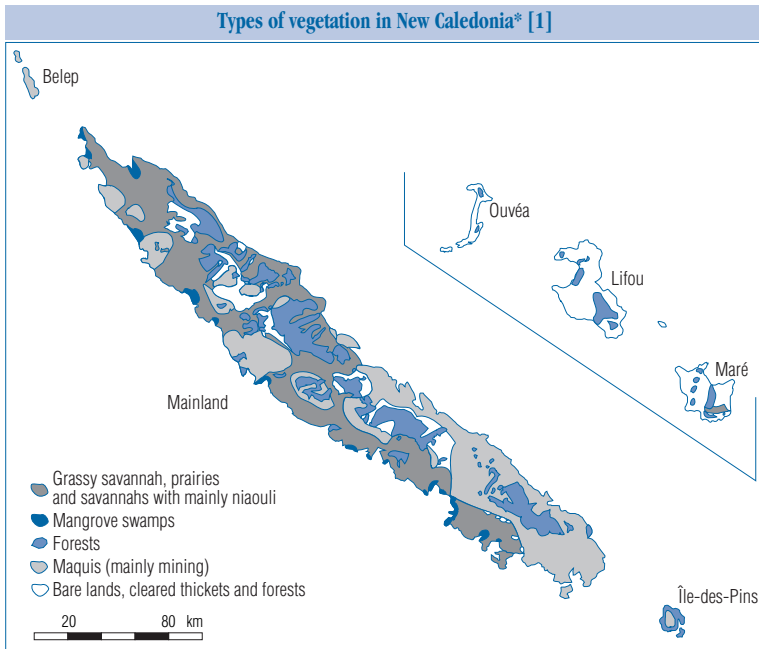
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SEE ALSO

Délibération 23-2001/APN du 20 mars 2001 sur les mesures relatives à la protection de la faune, de la flore et des espaces naturels en province Nord.

Délibération 85-2001/BPN et 86-2001/BPN sur la liste des espèces animales et végétales protégées en province Nord. Ministère de l'Environnement, *État de l'environnement dans les Territoires Français du Pacifique Sud, la Nouvelle-Calédonie*, Paris, Mars 1995.

Centre d'Initiation à l'Environnement.



* simplified map

Flora and fauna of New Caledonia* [2]

	Known species	Endemic rate (a)		Known species	Endemic rate (a)
Flora			Fauna		
Plants :			Land fauna, including :	5 000	80
Diatoms	252	30	flying foxes and fruit bats	9	55
Blue algae	174	9	lizards and geckos	71	86
Flowering plants observed in :			birdlife, including :	153	na
dense rain forest	1 719	87	land birds	123	20
mining maquis	1 031	91	sea birds	30	15
savannah	101	6	molluscs	110	na
dry forest	395	36	arthropods (insects, shellfish, arachnids, scorpions)	4 500	na
mangrove swamp	24	4			
beach and shore	180	13	Freshwater fauna, including :		
Various ferns observed in :			freshwater sponges	4	50
dense rain forest	181	45	freshwater molluscs	77	80
mining maquis	33	36	freshwater prawns	6	17
savannah	10	na	freshwater fish	96	17
dry forest	22	14			
mangrove swamp	1	na	Sea fauna, including :		
beach and shore	5	na	fish	1 700	na
Conifers	43	100	molluscs	6 500	na
Palm trees	39	94			

* Estimated data.

(a) Endemic rate: endemic species/known species.

Units : number, %

Land area* of types of vegetation in New Caledonia [3]

	Land area (ha)		Variation (%)
	Original	current	
Mangrove swamps	na	20 000	///
Rain forests	1 341 900	390 000	-71
Dry forests	460 000	4 500	-99
Savannahs and thickets	95 900	800 000	+734
Maquis	115 400	600 000	+420

* Estimated data.

Units : ha, %

2-GEOGRAPHY

The population of New Caledonia places great pressure on the environment. Urbanisation, industry, agriculture, farming, forestry, tourism, hunting and fishing, mining, fires, and the introduction of new species are the major causes of destruction or alteration of the environment.

Accordingly, certain areas of agro-pastoral, tourist, scientific, or urban interest are subject to specific legislation and are classified as mine protection perimeters (prohibiting or controlling mining activities) or as **land protection zones**. Furthermore, certain activities, because of potential risks (particularly ecological risk) are subject to the **Environment Protection Classified Sites** legislation.

In New Caledonia the environment is particularly vulnerable to bush fires ; even today these events are difficult to control, for lack of means, legislation and appropriate sanctions. Always set by men, fires have greatly contributed to the alteration of landscapes and biotopes. Since the settling of humans in New Caledonia, almost a third of the land area (6 500 km²) covered by original vegetation is estimated to have been turned into savannah, thickets and maquis, notably by fire. The erosion caused by fires also leads to terrigenous pollution of the lagoon through sedimentation. **Pest species** are another serious threat to biodiversity. Since 1990, the provinces have had sole responsibility for environmental protection, and have focused their attention on three areas : information, prevention and repression.

Authorities assist in activities aimed at environmental protection, producing educational material and implementing awareness campaigns (fires, cleanliness, pest species...). They also played a part in the creation of the Centre for Environmental Initiation in 1996, bringing together public bodies, associations, research centres, tribal leaders and the education sector.

► **Land protection zones.** There are three types :

- **integral natural reserve.** Area in which any form of hunting or fishing, forest exploitation, agriculture or mining, prospecting or digging, earthworks or construction, any activity likely to be a nuisance or disturb flora and fauna, introduction of zoological or botanical species are forbidden. Access is forbidden, as is traffic and camping, without special written permission of the appropriate authority;
- **provincial park.** Area set aside for the propagation, protection and conservation of wild animal and plant life, set up for the public's education and recreation, and in which hunting, slaughter or capture of fauna, destruction, mutilation or collection of flora are forbidden,
- **special reserve.** Areas in which certain activities may be either forbidden or controlled for specific reasons of environmental protection: special fauna reserve for protection of one or more animal species : special botanical reserve, created with a view to the rehabilitation and conservation of rare, endangered or of particular interest plant formations or species.

► **Environment Protection Classified Sites (EPCS).** Any infrastructure or operation that figures in the nomenclature of those of potential danger or disadvantage to the surrounding area, to public safety and hygiene, health, agriculture, protection of nature and the environment or the conservation of sites and monuments must be declared or approved.

► **Pest species.** Animal or plant species that have often been introduced into New Caledonia by men, intentionally or accidentally. In their native country, these species are like pioneers, but later give way to other challenging species they compete with. In New Caledonia, without their usual competitors, they take advantage over the local species that are not prepared for such an invasion.

SOURCES

[1] Services Provinciaux (Sud et Nord), données relatives à l'environnement terrestre.

Délibération n°37-90/APS du 28/03/1990 relative aux aires de protection terrestres et marines pour la protection de l'environnement dans la province Sud, modifiant la délibération n°108 du 9 mai 1980.

Gouvernement de la Nouvelle-Calédonie, *Avant-projet du Schéma d'aménagement et de développement de la Nouvelle-Calédonie*, groupe environnement (État des lieux), 2005.

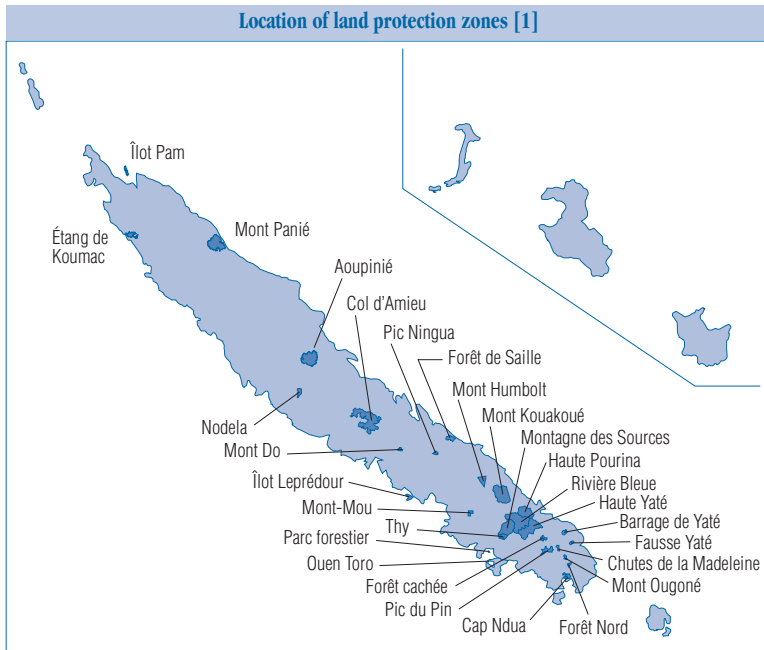
Province Nord : www.province-nord.nc

Province Sud : www.province-sud.nc

SEE ALSO

Beauvais M.-L., Coléus A., Jourdan H., *Les espèces envahissantes dans l'archipel néo-calédonien*, IRD éditions, coll. expertise collégiale, à paraître.

2.5 LAND ENVIRONMENT



29

Land protection zones* [1]

	Date established	Province	Land area ha
Integral natural reserve of La Montagne des Sources	1950	Southern	5 878
Provincial parks			10 257
Parc forestier M. Corbasson	1962	Southern	35
Parc de la Rivière Bleue	1980	Southern	9 045
Parc de la Thy	1980	Southern	1 133
Parc du Ouen Toro	1989	Southern	44
Special land reserves			54 949
for fauna			26 573
Haute Yaté	1972	Southern	15 900
Îlot Leprédour	1961	Southern	760
Col d'Amieu	1970	Southern	4 000
Îlot Pam	1980	Northern	460
Aoupinié	1975	Northern	5 400
Étang de Koumac	1989	Northern	53
botanical			15 181
Mont Mou	1950	Southern	675
Mont Humboldt	1950	Southern	3 200
Mont Panié	1950	Northern	5 000
7 southern reserves (Yaté barrage, Fausse yaté, Mont Ougoné, Forêt Nord, Cap Ndua, Pic du Pin, Forêt cachée)	1972	Southern	4 466
Chutes de la Madeleine	1990	Southern	400
Forêt de Saille	1980	Southern	1 100
Pic Ningua	1980	Southern	340
for fauna and flora			13 195
Mont Do	1981	Southern	300
Haute Pourina	1995	Southern	4 480
Kouakoué	1995	Southern	7 480
Nodela	1996	Southern	935
All			71 084

* Excluding Loyalty islands province that has "integral land reserve" status.

2-GEOGRAPHY

Protection of the marine environment is of the utmost importance in New Caledonia, where the lagoon is one of the largest and the most varied in the world, covering an area of 23 400 km². With 1 600 km of unbroken barrier reef and about 8 000 km² of coral structure, it is the 2nd largest reef formation in the world after Australia's Great Barrier Reef. The New Caledonian lagoon comprises biotopes and ecosystems associated with extremely diversified coral reefs : mangrove swamps (running along nearly 50% of the coasts, in particular the west coast, and covering an estimated area of 27 000 ha), seagrass beds, seaweed beds, rocky and stony coastline, sandy-muddy sea beds favourable to seagrass, and white-sand bottoms behind reefs. Total marine biodiversity is estimated at 15 000 species ; 1 700 species of fish have already been identified (in comparison, only 600 species are found in the rocky depths of all European waters). The New Caledonian marine environment is also characterised by a large number of emblematic and/or world-wide threatened species such as turtles, cetaceans (among them the humpback whale) and the dugong. New Caledonia is also one of the world's hot spots in terms of sea birds.

In consideration of this exceptional natural wealth, the **inclusion of New Caledonia's reef onto the UNESCO world heritage list** has been requested, and is currently under review.

Marine coral environment protection falls under the authority of the provinces, which exercise their prerogatives over the public maritime sector and define general legislation, for **fisheries** (fresh water and coastal sea waters), certain species (turtles, dugong...), and **marine protection zones**. Within the context of protection and sustainable management of coral reefs in the overseas collectivities, **IFRECOR** was set up in 1999. Lastly, the **Zonéco** programme was launched in 1991, with the objective of carrying out an inventory and evaluation of the marine resources in New Caledonia's EEZ and lagoon.

► **Inclusion of New Caledonia's reef onto the UNESCO world heritage list.**

The inscription of a natural property onto the world heritage list consecrates the acknowledgement of the exceptional universal value of that property, worthy of protection as part of the heritage of all humanity. The inclusion of the New Caledonian coral reefs and ecosystems, based on a series of inscriptions (6 marine zones totaling nearly 15 000 km²), is justified by the wealth, diversity, and good state of preservation of species and the marine and coral habitats.

► **Fisheries.** See chapter 20.

► **Marine protection zones.** *A marine reserve is established in a given area in consideration of the ecosystems' wealth and uniqueness, but also its vulnerability to anthropic pressures. It is a system of protection adopted all over the world, as an effective means to fight against excessive fishing. There are 3 types of marine reserves: special reserves, special fauna reserves and integral reserves (see deliberation 108 of May 1980, modified by deliberation 37-90/APS dated 28/03/1990 for the Southern province).*

► **IFRECOR.** *This French initiative is a national operation in favour of coral reefs in the overseas collectivities, established in March 1999 by Prime Ministerial decision and relayed by the ministry of the environment and the ministry of overseas France. By national decree of July 7, 2000, a local committee of IFRECOR was created in each of the ultramarine collectivities : Guadeloupe, Martinique, Réunion, Mayotte, New Caledonia, French Polynesia, Wallis and Futuna. These local committees constitute a forum for consultation between the various interested parties, to elaborate and propose plans of action in favour of the protection and sustainable management of coral environments, and implement them in harmony with all those concerned.*

SOURCES

- [1] Province Sud, Direction des ressources naturelles, service de l'environnement marin.
- [2] Province Nord, Direction du développement économique et de l'environnement.

SEE ALSO

Délibération n°15-94/APS du 15 avril 1994 relative au contrôle et à la gestion des aires de protection de l'environnement marin dans la province Sud.

Délibération n°243-2006/APN sur les conditions d'exercice de la pêche maritime dans les eaux territoriales et intérieures de la province Nord.

Laboute P., Feuga M. ; Grandperrin R., *Nouvelle-Calédonie : le plus beau lagon du monde*, 1991.

CTRDP (Centre Territorial de Recherche et de Documentation Pédagogiques), *Écologie en Nouvelle-Calédonie*, 1987.

IFRECOR, comité local de Nouvelle-Calédonie : www.ifrecor.nc

Zonéco : www.zonéco.nc

Province Sud : www.province-sud.nc

Province Nord : www.province-nord.nc

2.6 MARINE ENVIRONMENT

Marine protection zones* [1 and 2]

	Date established	Area
Special reserves		27 984
Southern lagoon park reserves		17 736
Îlot Signal	January 1989	243
Îlot Larégnère	January 1989	649
Îlot Maître	July 1981	765
Îlot Amédée (and grand récif Aboré)	July 1981	15 620
Île aux canards	January 1989	176
Îlot Bailly	January 1989	215
Epave du Humbolt	July 1981	13
Pointe Kuendu	April 1998	55
Bourail lagoon park reserves		3 004
Roche perçée and Baie des tortues	June 1993	120
Île Verte	June 1993	84
Poé	June 1993	2 800
Baie de Prony reserves		1 311
Îlot Casy	June 1993	145
Aiguille (I')	June 1993	13
Grand Port (temporary)	June 2006	1 153
Tenia reserve	April 1998	1 004
Ouano (La Foa) reserve	April 2004	3 669
Northern province reserves		1 260
Baie de Négoro	2000	1 260
Integral reserves		17 200
Yves Merlet	July 1970	17 200
Special fauna reserves		0.6
Sèche-Croissant	August 1994	0.1
Îlot Goéland	November 1995	0.5
All		45 185

* Apart from Baie de Négoro reserve, all marine protection zones are located in the Southern province; there are customary reserves in the Loyalty islands province.

Unit : hectare

Southern lagoon park reserves and special fauna reserves [1]

