

LANGEBAAN

1. **COUNTRY**

SOUTH AFRICA

2. **DATE OF COMPILATION**

NOVEMBER 1987 (Date of revision: JULY 1991)

3. **REFERENCE NUMBER** I ZI) Ow?

4. **COMPILER**

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5. **NAME OF WETLAND**

Langebaan Lagoon (which forms part of the West Coast National Park)

6. **DATE OF RAMSAR DESIGNATION**

25/04/1988

7. **GEOGRAPHICAL CO-ORDINATES**

South $33^{\circ}06'$ - $33^{\circ}13'$

East $18^{\circ}00'$ - $18^{\circ}13'$

Map number: 3318 AA Langebaan

8. **GENERAL LOCATION**

Nearest town: Langebaan (on the west coast of South Africa)

The Langebaan Lagoon extends over some 6 000 hectares and is composed of the following:

1. The islands Malgas (some 18 hectares), Jutten (43 hectares), Marcus (17 hectares and Schaapen (29 hectares).
2. Precincts of the lagoon (46 hectares).

3. The lagoon up to the high-water mark, and including the marshlands and Geelbek annex (5 700 hectares).
4. A section of Sixteen-mile Beach bordering on the farm Stofbergsfontein, and covering some 100 hectares (see map).
5. An area of 10,8 kilometres on Sixteen-mile Beach between the high-water and low-water marks, and parallel to the farms Schrywershoek and Stofbergsfontein.

9. AREA (ha)

Langebaan Lagoon, which is the Ramsar site: 6 000 ha
West Coast National Park: 20 000 ha

10. WETLAND TYPE

Lagoon open to the sea

11. ALTITUDE

Min: 0 Max: 193 (metres above sea level)

12. OVERVIEW OF SITE

This large, shallow lagoon (2-6 m) which enclose four islands is near the town of Langebaan. The lagoon is entirely marine with little change in salinity. It is one of the best sites for bird wathing. The water of the lagoon is clear and waveless. The lagoon is surrounded by reed beds and salt marshes. The area is relatively free of alien plants.

13. PHYSICAL FEATURES

13.1 Geology and **geomorphology**

The major features are the predominance of the Cape Fold System and the Witteberg Series (quartziet and shale).

13.2 Origins

The area as it is today is possibly a result of the changes of the last glacial period, some 20 000 years ago.

13.3 Hydrology

13.4 Soil type and chemistry

Sandy, not fertile.

13.5 **Water quality**

Marine - salinity is relatively stable.

13.6 Depth, fluctuations and permanence

Depth: Min: 2-6 m (in lagoon) Max: 40 m (mouth of bay)

13.7 **Tidal variations**

Mean High Water Springs	1.76
Mean Low Water Springs	0.26
Mean High Water Neaps	1.26
Mean Low Water Neaps	0.76
Mean Level	1.01

13.8 Catchment area

13.9 Downstream area

Indian Ocean

13.10 Climate

The average annual rainfall is 250 millimetres. Rainfall occur in winter and the summers are dry. There is not a big difference between summer and winter temperatures, the average for winter is 17,6 C and for summer is 26.9 C.

14. ECOLOGICAL FEATURES

Transitional Desert-heath (Renosterbos Dwarf Shrubland)

15. LAND TENURE

Vegetables are still grown on a small scale, while sheep and cattle do well in the veld. Dairy farming is practised with success. Small-grain crops like wheat are successful during the good years. The area is mostly undeveloped and is mostly state land.

16. CONSERVATION **MEASURES TAKEN**

16.1 Legal status

National Park

16.2 Management category

The existing management practices are dictated by the official policy of the National Parks Board of Trustees of the Republic of South Africa.

16.3 Management practices

In the spirit of the recommendations of the *World Conservation Strategy*, the National Parks Board accepts the following principals as fundamental to the practice of nature conservation: the preservation and consolidation of the area and the acquisition of surrounding areas to be incorporated within the National Park.

No detailed master plan exists but one is in the process of being drawn up. Nevertheless aspects of a master plan have been addressed in smaller management plans which are likely to be incorporated without much change in the master plan.

Zoning of the area for various forms and intensities of recreational activities is of paramount importance. Zoning of water-based activities on the lagoon has been implemented for some years and proved to be largely successful and accepted by most users.

A policy is being devised for the islands to guard against the introduction of alien biota and to cater for tourism with due regard for the island biota and environment.

The removal of alien plants, notably *Acacia cyclops*, in the areas of the West Coast National Park surrounding the lagoon has been implemented on a large scale.

Development undertaken thus far by the National Parks Board and that planned for the future has been in accordance with environmental considerations and with due regard for ecologically sensitive areas. An example has been the rerouting of a road which traversed part of a saltmarsh, to a position far from the marsh.

17. CONSERVATION MEASURES PROPOSED

Future management practices needed would be the preservation and consolidation of the areas presently under control of the National Parks Board.

Special constraints would include:

- i) the effective control of the numbers of visitors to the area;
- ii) keeping people out of sensitive areas (e.g. the salt marshes);
- iii) keeping control over sporting activities including angling, skindiving, yachting, walking and the collection of bait;
- iv) keeping a constant vigil against diverse forms of pollution (oil pollution, dust pollution from manganese ore loaded in the port of Saldanha to the north of the lagoon, and littering).

Efforts are being made to acquire additional land bordering on the lagoon to consolidate the National Park and exercise control over development in this critical area.

18. LAND USE

Early settlers grew vegetables and farmed successfully with sheep and cattle. The fresh provisions were enjoyed by ships which called at the bay before continuing their voyages to and from the Far East: Nowadays the situation is very much the same as regards agriculture. Vegetables are still grown on a small scale, while sheep and cattle do well in the veld. Dairy farming is practised with success. Small-grain crops like wheat are successful during the good years.

Seaweed

For years the local authorities spent large amounts of money and much energy removing the seaweed known as *Gracilaria verrucosa*. To them it was a public nuisance, spoiling the beaches. However, during the last World War it was discovered that this particular seaweed was a rich source of agar and attitudes changed rapidly. Agar is used as a laxative and as a food medium in the artificial cultivation of bacteria. It is also used in jellies and in China as a glue.

With all these uses this once-despised seaweed became of great economic importance to the local population. So successful did seaweed-collecting become that in 1973, for instance it earned revenue of about one million rand. Since the beginning of 1974, however, the amount of cast-up weed has been reduced by as much as 10 or even 100 times. This has very nearly brought about the end of a once-thriving industry.

The sudden decline in the abundance of *Gracililaria verrucosa* seems to be linked to the dredging of the bay. This particular sea-weed anchors itself in the sandy bottom of the lagoon and bay, stabilizing the sand and provide shelter, in its many fronds, for numerous pelagic animals. Juvenile black mussels also use the fronds for anchorage during a period of their development. So stable does the sand become that other seaweed anchor themselves amongst the *Gracilaria*. Dredging has disturbed the sandy beds of the bay and covered every underwater plant with layer of fine silt, causing the *Gracilaria* to decrease rapidly in quantity. Because of its importance to other marine life, the latter has also suffered. Whether *Gracilaria* will re-establish itself to the same degree is something that only time will tell.

Mining

Long before the geologist Mills studied the deposits of phosphatic rock in 1897, local residents had known that rocks near Hoedjies Bay were rich in phosphates. Deposits were also discovered on Constable Hill and in 1914 the Saldanha Bay Phosphate Company started production of finely ground, untreated phosphates. These particular phosphates were rich in aluminium and therefore not readily assimilated by plants with the result that demand was poor and the venture failed. After much prospecting had taken place in the early 1900's, Beard's Quarry opened in 1943. Some of its ore was used for phosphatic pig-iron, while the lower-grade portion was sold as fertilizer. A second mine opened shortly afterwards at the old Varswater Quarry commence operations. Twelve years later it closed. Marketing difficulties had made the project no longer viable and now maintenance staff are the only people on site.

Resource utilisation

Southern mullet *Liza richardsoni* and to a lesser extent flat-head mullet *Mugil cephalus* are netted in the lagoon using small drift nets. The nets are set by one or two persons operating from a small dingy. Recreational angling and the associated collecting of invertebrates for bait is permitted in designated areas. Fifteen permits to net mullet in the lagoon are issued annually to residents of the area who were operating in the area before it was proclaimed a national park.

It is a condition of the permit that the holder shall submit monthly returns to the National Parks Board which in turn forwards them to the Sea Fisheries Research Institute (Department of Environment Affairs) for assessment. Quotas are set on permits for the harvesting of mullet, as are the areas where a permit holder may operate. Net and mesh sizes are stipulated. It is a condition of the permit that the net must be attended and unattended nets will be confiscated. Patrols are conducted to ensure that permit conditions are not contravened.

19. POSSIBLE CHANGES IN LAND USE AND PROPOSED DEVELOPMENT PROJECTS

Mention must be made of the private landowner with riparian rights on the bay and lagoon. Developments on these private lands could well be to the detriment of the conservation ideal, unless such development is properly planned in accordance with the master plan.

20. DISTURBANCES AND THREATS

If not controlled, the red iron-rich dust from the ore-loading terminal can disturb the natural ecological system slowly but surely. Oil pollution in Saldanha Bay remains an ever-present threat and any large spill in the bay would almost certainly spread to the lagoon. Oil dispersants cannot be used in the area on account of their toxicity, thus reducing the ability to combat a spill. Malagas Island, Jutten and Marcus all hold thousands of jackass penguins *Spheniscus demersus*. Close by these islands pass ore carriers and oil tankers, bringing with them the risk of oil pollution, fatal to penguins.

Beach buggies driven over the marshes crush and compact plants and mud, leaving stunted plant life and tracks visible for years later. As the pressure of development and recreational use increases, so the lagoon will slowly die, unless a programme of planning and control is instituted to prevent man-made factors marring the age-old environment. Secondly, there is the problem of human behaviour. There is no purpose in merely controlling visitor numbers unless all visitors observe an acceptable standard of outdoor behaviour. These two factors alone could lead to the gradual degradation of this resource.

Then there is the even greater threat of large-scale pollution by industry, urbanization and shipping. Regardless of the high standards demanded by legislation aimed at preventing air and water pollution and despite the bona fides of the organizations concerned, accidents are bound to happen. One heavy discharge of pollutant into the bay or a major oil spill can cause great losses of marine life. But apart from this threat there is the cumulative effect of minor quantities of pollutants which in the course of time can lead to degradation of the environment.

Land surrounding the lagoon has considerable appeal for the development of resorts and other recreational facilities. Apart from the negative aesthetic aspects of development in this largely untouched area, there would be damage to the salt marsh in the contact zone and increased disturbance of the biota, notably the avifauna.

21. HYDROLOGICAL AND BIOPHYSICAL VALUES

22. SOCIAL AND CULTURAL VALUES

Historical features of the area:

The area was named after the Portuguese explorer Antonio de Saldanha in 1503. In 1703 the Dutch East Indiaman "Meresteijn" foundered on the rocks of Jutten Island leaving its fortune and treasure under the breaking waves until 1971, when the divers Heywood and Dichmont laid claim to the booty.

A few years after the loss of the "Meresteijn", Saldanha Bay became a tent-village quarantine station when H.M.S. Boadicea put into the bay in order to rest her tired and sick crew. Weather-beaten gravestones still bear witness to the losses she suffered. In 1781 the roar of cannon heralded the Battle of Saldanha as Commodore George Johnstone, with a fleet of British battleships and frigates, captured six Dutch ships which were lying at anchor. The "Middelburg" only escaped capture by the British, through being set on fire and blown up by its captain. In time, its wreck became a treasure trove for 20th century divers.

On the 28th July, 1863 the black-hulled, eight-gunned, Confederate raider, "Alabama" put into Saldanha Bay to rendezvous with her coaling tender "Agrippina". Captain Rapahel Semmes fell in love with the wild, flower-studded shores of the bay and his ship soon became the centre of attraction for the local inhabitants. After sailing from Saldanha Bay, an enemy Yankee barque, "Seabride", was captured by Semmes in Table Bay in full view of thousands of Capetonians who clambered up Signal Hill for a better view.

Onlooker to many naval skirmishes, the bay, its eyes and mind, would have watched with wry amusement as various authorities tried in vain to convert it from a benign bay of shelter to one of commercial venture or naval importance. Even as recent as 1944 the bay saw wartime activity by the firing of mine loops spanning the entrance, as a result of a suspected submarine having set the alarm off. Today a naval training base controls the headlands to the bay.

Whalers came and went until Johan Bryde (after whom Bryde's whale is named *Balaenotera edeni* Anderson 1878 (+ *B. brydei* Loosen, 1912)) set up a shore station at Donkergat in 1909. Today only a few lonely hulks, rusting in the south-east wind, bear witness to what was until recently a viable industry.

Cultural features of the area:

The two features most remarked upon by early visitors to Saldanha Bay were the desolation of the landscape and the quantity of easily caught fish. Had Cape Town been any closer, exploitation would have been more rapid, but the arduous 100 kilometres proved too far for some time. The local fishermen have constantly

reaped the fluctuating harvest, drying the cleaned, salted haarders and maasbankers on wooden frameworks called "stellasies". Snoek *thyrsites atun* were also caught in abundance and dried in the wind and hot sun, or cured in brine and sold to all and sundry as "mooitjies". The snoek runs lured the local fishermen in their open craft far out to sea, to ride the high Atlantic swells. The six-metre boats, with old-fashioned sprit-sails, oars and heavy beaching-poles for dragging the boats up the beach, can still be seen resting below the picturesque cottages of the remaining fisherfolk.

Development and conservation of Langebaan Lagoon have given local fishermen cause for concern with regard to their traditional occupation and source of food exploitation of fish and other marine life. The Minister of Economic Affairs, however, has honoured the historic association and tradition of the Churchhaven fishing community by extending special permission to them to fish, so preserving their traditional life-style.

Until as recently as 1903 no commercial fishing activities prospered in Saldanha Bay. However, rock lobster *Jasus lalandii*, known as crayfish, was first canned and marketed during that year when two immigrants, Holland and Hinchcliffe, set up their factory on the beach at North Bay. The harvest was good and eventually the industry prospered, only to find the supply wasn't bottomless but very much in need of careful "farming". Today the bay is a sanctuary and no rock lobsters may be removed. 1964 saw the "white fish" industry come to Saldanha. With the formation of the Sea Harvest Corporation, the processing of hake *Merluccius capensis*, sole *Austroglossus microlepis* and kingklip *Epinephalus* sp., all trawled from the open sea, was begun at Saldanha, providing employment opportunities for many local inhabitants.

Pelagic fish also provide a basis for employment, as pilchards (Clupeidae) and maasbankers are ground into fish meal, rendered into fish oil or canned for eating.

Early in 1845 landing jetties were erected on Malagas Island in anticipation of a frantic "get-rich-quick" rush, sparked off by the tremendous demand for guano. Malagas itself lay 10 metres deep under thousands of tons of this rich fertilizer that had been deposited over the years by countless seabirds. Penguins tunnelled into the deep drifts of dropping to make nests and breed successfully, all the while adding to the deposits. The rush came, as expected, and the eight-hectare island was soon surrounded by ships and swarming with men. Within a year the island lay bare and abandoned. The men were gone. Penguins remained, searching for suitable nesting places. Gannets *Morus capensis* and cormorants wheeled overhead, uncertain whether it was safe to land or not. Within 50 years recovery had begun and 704 metric tons of droppings were removed. The following year, 1899, 714 tons were removed and so, over the years, the birds kept their valuable deposits fairly constant. The 1960's saw a decline in the yield of guano and it has been on the wane ever

since. In 1977 the yield was a meagre 152 tons. The amount of guano reflects the number of birds using the island and the records show that all sea-bird populations are declining at a similar rate. Interestingly, the rate of decline of both birds and guano is equal to the decline of fish stocks, signifying the importance of sound fisheries management. An important side-issue is reflected in the threatened status of the jackass penguin. As shoals of fish became smaller and less frequent the penguin, being unable to fly to further shoals, has a lean time of it, particularly when trying to feed its offspring.

When Van Riebeeck sent out the "Goede Hoop" to explore Saldanha Bay in 1652, his men came across a large number of dried and stacked sealskins, evidence of French use of the large seal population. Sensing the possibilities of furthering trade for the Company of Seventeen, Van Riebeeck attempted to exploit the Cape fur seal *Arctocephalus pusillus*. The business of slaughtering seals was not easy for the Dutch and their efforts gained them only 1 500 skins. The French were more skilled and in a six-month period accumulated some 39 000 skins. The seals soon recovered from this massive slaughter as the survivors had ideal living conditions with plentiful fish for the taking. Within a year the Dutch were back, once again slaughtering the young seals. The years pass in similar vein, with the seal population always managing to make a come-back. Twentieth century mechanisation of the fishing industry soon depleted the seals' larder of fish, forcing them to travel further and further for their food. This struggle for food reduced the numbers of seals to those that could survive on the dwindling resources still accessible. As an indication of the need for strict fisheries management, the last seals were slaughtered some 20 years ago (1964), bringing an end to a very old industry.

23. NOTEWORTHY FAUNA

At the northern entrance of the lagoon the intertidal sands have a poor (benthic) fauna, but the subtidal banks are very rich. Concentrations of the bivalve *Mactra lilacea* with a biomass of 800 g (dry mass)/m² have been recorded and Lucas (1979) determined filtration rates, energetics and gamete production. The sandflats in the middle of the lagoon show an increased diversity in intertidal fauna with *Upogebia* (a gastropod) common in muddy areas while *Callinassa* (an anomurid crustacean) is abundant in the sandflats, as are polychaetes, crustacea and molluscs. Puttick (1977, 1978, 1979) while investigating the food available to the Curlew Sandpiper *Calidris ferruginea*, recorded a biomass of 14,37-23,9 g (dry mass)/m² the upper 0 - 6 cm

The clear water in the lagoon provides little protection for fish and the latter are therefor not abundant. For years fishermen believed that haarders *Lizaramada* and massbankers *Trachurus trachurus* bred in the weed beds of Langebaan Lagoon. Today we know that most of these fish spawn within the lagoon. The lagoon

does, however, play an important role as a nursery for the development of post-larval, juvenile fish that enjoy the food bonanza of the marshes and weed beds. Escape from predators is also easier amongst the weeds. Although gobies (Gobiidae), klipfish (Clinidae), pipefish (Syngnathidae) and silversides *Atherina breviceps* are more in evidence, popular angling fishes like kabelhou *Johonius hololepidotus*, white steenbras *Lithognathus lithognathus*, dassie *Diplodus sargus* and red roman *Chrysoblephys laticeps* occasionally venture into the lagoon. Skates, rays and small sharks are common in the lagoon and large sand sharks can often be seen in shallow water, basking in the sun.

The main aquatic birds are waders of which there are 23 species including 15 regular palearctic migrants. Summers (1977) has shown that the wader population increases from an average of 1 671 in winter to 36 759 in summer. The importance of this lagoon to wading birds may be gauged by the criteria adopted by the International Convention on Wetlands, recommending, *inter alia* that wetlands supporting not fewer than 20 000 wading birds should be classified as being of international importance for nature conservation, (International Waterfowl Research Bureau 1974). Populations of curlew sandpipers *Calidris ferruginea* regularly exceed 20 000 (Summers 1977). These waders feed on surface or shallow-burrowing invertebrates and consume 4.32 g (dry mass)/m²/yr. The mean annual biomass of invertebrates is 18g/m²/yr and therefor the waders consume less than 25 % of the available food.

Cormorants (Phalacrocoracidae) and terns (Sternidae) are not abundant unless a shoal of fish is driven from Saldanha Bay into the lagoon and on occasion, large flocks of flamingos occur.

Smaller mammalian creatures inhabit the area, including shrews, four-striped field mice *Rhabdomys pumilio*, Namaqua rock rats *Aethomys namaquensis*, gerbils, bush karoo rats *Otomys unisulcatus*, vleirats *Otomys irroratus*, giant dune mole-rats *Bathyergus suillus*, blesmoles *Georchus capensis*, Cape Golden moles *Chrysochloris asiatica* and Grant's desert moles *Eremitalpa granti*. Other mammals include dassies *Procavia capensis*, scrub hare *Lepus saxatiles*, Cape hares *Lepus capensis*, caracal *Felis caracal*, cape grey mongoose *Herpestes ichneumon*, Water mongoose *Atilax paludinosus*, spotted genet *Genetta*, Cape fox *Vulpes chama*, black-backed jackal *Canis mesomelas*, Cape polecats *Ictonyx striatus*, Cape porcupines *Hystrix africae-australis*, grysbok *Raphicerus melanotis*, grey duiker *Sylvicapra grimmia* and steenbok *Raphicerus campestris*.

24. NOTEWORTHY FLORA

The area surrounding the lagoon becomes a dazzling field of solid colour in springtime. The verges of the lagoon are always lush with blue-green salt-marsh succulents and dense stands of bullrushes, reeds and fresh-water bog vegetation. Introduced

perennials are not often encountered and alien plants like rooikrans (*Acacia cyclops*) are confined to the main access routes. This freedom from alien species is one excellent reason why the Langebaan peninsula has been proclaimed a national park in 1985.

Phytoplankton: Phytoplankton primary production shows seasonal and spatial variations increasing from 261,6 mg C/m⁵/day in winter to 675,4 mg C/m /day in spring to a maximum of 885,3 mg C/m in summer (Henry and Moitert 1977). Production rates ranged from 661,0 mg C/m at the entrance of the lagoon to 162,6 mg C/m³ at the station nearest to the head of the lagoon. A correlation between total chlorophyll and gross primary production in Saldanha Bay only ranges from 846,9 mg C/m /day to 3301,2 mg C/m /day.

Algal Flora: A synopsis of the algal flora of Saldanha Bay and a critical survey of old records relating to these plants has been undertaken by Simons (1977). The range of habitats includes rocky and sandy substrata, shores comparable with those of open coasts in terms of surf stress and those in which water movement is so reduced as to be little more than tidal ebb and flow. The algal flora is basically that of the South African west coast: modifications are imposed by protections from wave stress. Some 71 + species of different marine algae have hitherto been recorded. (13 species of Chlorophyta, 10 species of Phaeophyta, and 48 species of Rhodophyta).

25. SCIENTIFIC RESEARCH FACILITIES

26. CONSERVATION EDUCATION

Environmental education has received considerable attention. A centre has been established in a historical homestead called Geelbek and an environmental awareness programme devised and implemented. Funds for the restoration of the Geelbek homestead were provided by the private enterprise, viz Goldfields of South Africa. Bird hides have been built and trails laid out.

The area is also being used as an open air laboratory for students at tertiary institutions where they participate in scientific programmes, often leading to the acquisition of higher degrees.

27. RECREATION AND TOURISM

Yachting

Steady winds and sheltered waters make Langebaan Lagoon and Saldanha Bay a yachtsman's paradise. Near the shore water-skiers enjoy the safety of the lagoon and the ease of take-off provided by the beaches. Deep-sea yachts anchor off Saldanha and Langebaan village, attracted by the easy access to the open sea and the day's run from the Royal Cape Yacht Club in Table Bay.

There is only one yacht club serving the Saldanha Bay-Langebaan area. This is the long-established Saldanha Bay Yacht Club. Its premises adjoin the South African Naval Academy and provide good facilities for launching and socializing, particularly during the summer season, when races take place. Small craft from all over the country participate in well-organized races. Many dinghy classes favour the wide-open stretches of sheltered sea and steady winds for their national championship regattas, using the broad, gently sloping beaches for launching. The hard sands of the beaches skirting Langebaan Lagoon provide good launching for light boats on trailers, while the slipway at Langebaan village can handle the heaviest craft.

Walking

Much of the land is privately owned, and in such cases walkers should obtain permission from the owner before setting out to tramp across his fields or dunes. Cars are, however, not frequent disturbers of the dusty, winding roads. Thus the latter offer nature-lovers good opportunities to observe the unfolding countryside. "Sixteen-mile beach" is a wild stretch of paradise for any beachcomber. At low tide the boulder-strewn stretches of coast always provide the sharp-eyed stroller with an endless array of fascinating cast-ups, perhaps even ancient coins.

Swimming

With the ebb and flow of tides, the waveless shores of Langebaan Lagoon are awash with crystal clear water at high tide; covered with warm, sunbaked sands at low tide. With no currents to speak of (except in the channels), no pounding waves at high tides, a depth of water that makes swimming a relaxed affair. The lagoon is like a huge natural pool, filled with cold sparkling water. Saldanha is nearer to the open sea and so is more affected by its swells and temperature, but - away from the harbour and fish factories - the beaches are every bit as pleasant.

Skindiving

Over the centuries, man and his boats have come and gone, leaving a rich treasure trove of coins and artifacts. The known recoveries of relics by skindivers number into the thousands, giving a clue as to the quiet, unreported removal of treasure hoards, and to the quantity still remaining beneath the sands.

Fish are not as plentiful for the spearfishermen as in times past. An important proviso divers should remember is that no rock lobster may be taken from the bay of lagoon. The North Head and South Head form the limits of the sanctuary. Outside of this area only five per person, per day are allowed, provided their tails are longer than 90 millimetres and no females, especially females in berry (with eggs) are to be caught. Abalone enjoy the same protection and none smaller than 115 millimetres may be

taken. Each diver is restricted to five per day. Most fishing is done from boats and white steenbras, elf, sharks, rays and skates are well known to the locals. Galjoen are caught by anglers fishing from the rocks on the seaward side. Good baits are available locally but note should be taken of the restrictions imposed by the government. For example, 50 white mussel are allowed per person while only 25 black mussel are permitted. In addition, each fisherman is allowed only five bloodworms and 50 prawns.

Exploring

Although most of the land surrounding Saldanha Bay-Langebaan is privately owned, the areas which are open to the public are rich in interest and history. Many books have been written about the area and they serve to highlight places of special interest. "The Saldanha Bay Story" by J Burman and S Levin is one of the most recent of these. Long before the white man started to record his use of the area, Hottentots and Bushmen came and went in their seasonal migrations, leaving traces of their presence in shell-lettered middens. It is illegal to pick up artifacts that might have been left by these wandering people, as archaeologists responsible to the National Monuments Commission are anxious to find out more about their history.

Camping

A few years ago it seemed that every bush hid the remains of a family's camping holiday. Now the Malmesbury Divisional Council has forbidden haphazard camping and has provided modern amenities at Saldanha and Langebaan villages.

Flying, riding and other activities

The residents of the Saldanha-Langebaan area are certainly varied in their choice of recreation. The flying club at Vredenburg is very popular. Wide-open spaces provide the ideal terrain for horseriding.

28. MANAGEMENT AUTHORITY

National Parks Board

29. JURISDICTION

National Parks Board

30. REFERENCES

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31. REASONS FOR INCLUSION

1. Langebaan is the richest lagoon in southern Africa due to the fact that it is entirely marine. Little fresh water changes the relatively stable salinity, so allowing for the success of the salt marsh web of life.
2. Thousands of waders and seabirds utilize the lagoon. The marsh and sandflats of the bay support up to 50 000 waders of 23 species in summer, most of them long-distance migrants from the far North: Greenland northern Europe and Siberia. Others, like the white-fronted sand plover *Charadrius marginatus* are residents, and can be seen all year. The extensive intertidal area of the lagoon supports a huge population of invertebrate fauna, supplying the birds with enough food to exist in numbers impossible on dry land. North of the lagoon lie the five islands of Saldanha Bay, which provide a home for nearly a quarter of a million seabirds. Malagas Island, Jutten and Marcus all hold thousands of jackass penguins *Spheniscus demersus*. Schaapen Island, opposite Langebaan village, has the largest known

breeding colony of kelp gulls *Larus dominicanus* in southern Africa. Saldanha Bay-Langebaan is one of the best sites for bird-watching and bird-study in the south-western Cape.

32. OUTLINE MAP OF SITE

(To be appended)

Langebaan

Location South 33° 06' East 18° 01' Nearest town: Langebaan

Area 6 000 ha

Degree of Protection In the spirit of the recommendations of the *World Conservation Strategy*, the National Parks Board accepts the following principals as fundamental to the practice of nature conservation: the preservation and consolidation of the area and the acquisition of surrounding areas to be incorporated within the National Park.

Site Description This large, shallow lagoon (2-6 m) which enclose four islands is near the town of Langebaan. The lagoon is entirely marine with little change in salinity. It is one of the best sites for bird watching. The water of the lagoon is clear and waveless. The lagoon is surrounded by reed beds and salt marshes. The area is relatively free of alien plants.

International and National Importance

1. Langebaan is the richest lagoon in southern Africa due to the fact that it is entirely marine. Little fresh water changes the relatively stable salinity, so allowing for the success of the salt marsh web of life.
2. Thousands of waders and seabirds utilize the lagoon. The marsh and sandflats of the bay support up to 50 000 waders of 23 species in summer, most of them long-distance migrants from the far North: Greenland northern Europe and Siberia. Others, like the white-fronted sand plover *Charadrius marginatus* are residents, and can be seen all year. The extensive intertidal area of the lagoon supports a huge population of invertebrate fauna, supplying the birds with enough food to exist in numbers impossible on dry land. North of the lagoon lie the five islands of Saldanha Bay, which provide a home for nearly a quarter of a million seabirds. Malagas Island, Jutten and Marcus all hold thousands of jackass penguins *Spheniscus demersus*. Schaapen Island, opposite Langebaan village, has the largest known breeding colony of kelp gulls *Larus dominicanus* in southern Africa. Saldanha Bay-Langebaan is one of the best sites for bird-watching and bird-study in the south-western Cape. It certainly boasts the greatest number of birds.