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Size and Shape

Herdsman Lake is an almost oval shaped lake, measuring 2.5 km from north to south and 2 km from east to west, with an area of just under 370 ha.

Description

much of the lake becomes dry. 15 per cent of the lake is permanent deep water (2-5m) and is free of reeds. 5 per cent is shallow water, which dries to grassland in autumn and mudflats in summer. The macro-habitats at the lake include: Bulrushes, Paperbark thickets, Open drains, Baumea clumps, Deep water, Shallow fens, Lawns, Pasture areas and Banks-of drains. Almost 80 per cent of the lake is covered with bulrushes, a 2–3 m tall reed that grows in shallow water. In the late summer and autumn,







The Gould League of Western Australia, is a not-for-profit community group working in partnership with the Education Department. The League specialises in environmental education for school children and the general public. The Gould League conducts monthly birdwalks from the Centre, as well as sleepovers and excursions. Established in 1939 the Gould League is the oldest environmental education organisation in the State. The staff will be happy to help education organisation in the State. The staff will byou and your group understand the Lake's biology.

The WA Gould League provides a range of materials on topics in environmental and wetland education for primary and secondary students. The Centre has an activities room, observation deck and display area. Study topics include ecosystems, bird identification, food pyramids, human effects, water quality, wetlands, frogs, macro-invertebrates, habitats, ecology and plants.

School Groups

For years, birdwatchers have been aware of the wealth of bird life that lives and breeds at Herdsman Lake. The observation deck allows study of birds in the central wetland and hides are located at the edge of the lake.

Birdwatchers

A brief History of the Lake

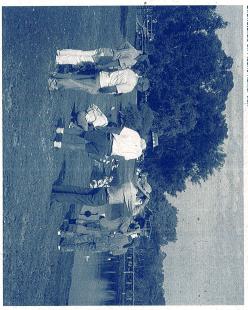
1829 the first European settlers arrived in WA, Herdsman Lake was an open body of water utilised by Aboriginal people. 1830's the Lake was a possible water supply for Perth but the scheme was abandoned. Among the early settlers were Thomas Walters, Henry Trigg and Walter Padbury who ran cattle. 1854 Benedictine monks established orchards and vineyards.

1875 William Osborne established market gardens. Much of the land was still home to kangaroos, possums and snakes. Cattle were grazed here and driven north to Champion Bay (Geraldton). 1870's Father Gibney (who had ministered to Ned Kelly) purchased land including the Lake, on behalf of the Catholic Church. 1890's, the gold rush saw an increased demand for meat, settlers grew crops and raised pigs, poultry and dairy cattle

1912 Osborne Park is made suitable for market gardening by drainage into Herdsman Lake. 1919 Returned Sailors, Soldiers and Nurses Association urges the government to buy and drain Herdsman Lake, to allow it to be used as market gardens and be settled.

1921-25 the lake was drained to overcome flooding problems and a tunnel mined to Floreat Beach. 1936, the Federal government investigated the use of the lake as an alternative airport for Perth, but this was rejected due to the high cost.

1953 the last kangaroo is seen. 1979 start of the Floreat Waters residential Development. 1984 Herdsman Lake Wildlife Centre opened 9th November. 1999 Herdsman Lake is declared a Regional Park. 2000 Management Plan is developed





How you can use the

How the Wildlife Centre began

In 1970 the Gould League proposed to the WA Government that Herdsman Lake be preserved for scientific and educational purposes and the associated Crown Land be a wildlife refuge. In 1974 the Gould League recommended setting up a Field Study Centre at Herdsman Lake and in 1980 the World Wide Fund for Nature agreed to help raise funds for the Centres construction. Private companies, the WA Government, and individuals contributed to the project and the Wildlife Centre was completed in 1984.

The W.A. Gould League manages the Wildlife Centre in partnership with the Education Department. The Dept of CALM maintains the grounds and the City of Stirling the Lake surroun

Herdsman Lake Wildlife Centre

The Centre is available for use as an Environmental Education and Wetland Field Study Centre to demonstrate:

- how the lake's animals and plants interact
- human impacts on an urban wetland system how an urban wetland catchment functions feeding patterns between organisims

- the types of plants and animals in wetlands the local history of the area





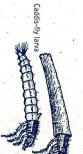
Walks around the lake

The Wildlife Centre is an ideal starting point, before setting out on your walk, to obtain further information. Parking is available during office hours and weekends. There are no toilets or drinking water taps around the Lake.

Olive Seymour walk (1) east of the Wildlife Centre, is 500 metres of path and raised boardwalk, which takes you through the Lake to view Melaleuca woodlands, bulrushes, honeyeaters, grassbirds and

Southern walk (2) crosses Billy Goat Gruff Bridge and follows the shoreline to the playground and island in the southwest corner. Here a short walkway affords excellent viewing of egrets, ibis, blue bill and musk ducks and a range of other waterbirds. Look for swamp

Maurie Hamer trail (3) along the west side of the Lake offers good viewing of waders. Follow the main path left to the Floreat Drain or Pioneer Cottage.





lakeside road north will bring you to the last remaining market garden around the Lake, and the main drain. **Pioneer Women trail (4)** Head along the north side of the Floreat drain and follow the track to the statue to the Pioneer Women. The

Bulrush or reed-mace (*Typha orientalis*) is the dominant plant at the Lake. Its Aboriginal name is yanget after which Yanchep and Yangebup are named. It is green from late July to May when much of it dies with new green shoots beginning to show in June.

Vegetation

Central Conservation Area trail (5) can be reached via the Perth Horse and Pony Club parking area or adjacent to the Lake in which the statue to the Pioneer Women is placed. Be aware of snakes. Affords excellent viewing of a range of waterbirds

Jon Sanders Drive walk (6) can be accessed from the east from the tennis courts on Herdsman Parade or from the Perth Pony Club car park, and walking east along bush tracks. The track is best used in cooler months, and bird hides are to be found. The track crosses Balgay Drain via an attractive bridge

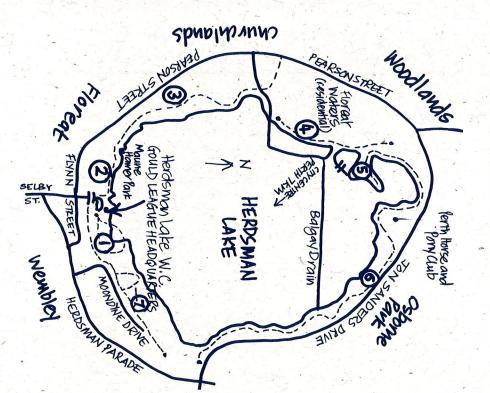
Paperbarks (*Melaleuca rhaphiophylla*) grow up to 6 m tall, and may have their lower trunks under water in mid-winter. The leaves are 2 cm long, and contain a strongly aromatic myrtle oil. The dense canopies of trees are ideal for nesting and day sleeping for nocturnal birds, such as the nankeen (rufous) night heron (*Nycticorax caledonicus*).

are cylindrical, and have nodes through it for strength.

Small thickets exist around parts of the Lake, of a bamboo-like

whose stems

Duck Flat walk (7) From the Wildlife Centre, walk past the Telstra compound then head east. Provides examples of what can be done to make drains more attractive, some excellent waterbird viewing sites (in dry weather) and a parkland vista.







Only three species of frogs are still common. The slender tree frog (Litoria adelaidensis) grows to 60 mm and lives in the bulrush and twig rush. The western green and gold tree frog (Litoria: moorei) inhabits more densely vegetated areas of permanent water. The banjo frog (Limnodynastes dorsalis) has a "bonk bonk" call and is found in winter in vegetation adjacent to water, and in summer



Aquatics

The Lake contains a variety of aquatic life from minute water fleas to long necked turtles with shells up to 30 cm long. Macro-invertebrates include scuds, pond snails, water boatmen, backswimmers, leeches, damselflies, dragonflies, water tigers, midge larvae, water mites, and diving beetles. Introduced fish like *Gambusia* and goldfish are common, while carp up to 30 cm are less common. Native goby fish to 4 cm long can be found in the

The Lake water is fresh, and over 50 species of aquatic creatures live in its waters. These form important factors in the food chains, many helping to break down the plant material of the Lake. In turn, these become the food for the meat-eating aquatic creatures, such as the dragonfly and damselfly nymphs.

Amphibians

burrows into the ground.



Spiders

Among the paperbarks, from spring to late autumn may be seen the huge orb webs of two spiders. One is the well-camouflaged garden spider (*Eriophora* species), which builds a web up to 50 cm across. During the day, the spider hides in foliage or bark, but at night takes up a position at the hub of the orb. The golden orb weaver (*Nephila edulis*) builds a large orb of golden web. She has a silver grey abdomen and remains in her web day and night. The small, but skilfully camouflaged long jawed spider (*Tetragnatha* small, but skilfully camouflaged long jawed spider (*Tetragnatha* species) builds orb webs among the reeds. Her abdomen is long and narrow, and her very long legs enable her to "disappear" as she becomes part of the reed in shape.

Insects

In season, dragonflies and damselflies are commonly seen swooping or hovering over the water areas after small flying creatures. Wanderer butterflies can be seen flying about the Centre. The rich brown wings, strongly marked with black veins are easily identified.

Reptiles

Tiger snakes are the most common reptile here and bear up to 20 live young at a time. Their favourite food is frogs: In the water the long necked turtle eats live food and is also a scavenger. Common scaly foot (Burton's legless lizards), western bearded dragons and striped skinks can be found in long grass.

Birds

About 85 species of birds are seen at Herdsman Lake annually, but over the last 70 years, 162 species have been recorded in total. Most common are coots, swamphen; moorhen, mountain duck, black duck, musk duck, blue billed duck, little grebe, crested grebe, pelican, great egret, yellow billed spoonbill, sacred ibis, white faced heron, welcome swallow, tree martin, swamp harrier, reed warbler, little grass bird, darter, brown and singing honeyeaters.

In the spring and summer, migratory waders from Siberia can be seen.



Management

Herdsman Lake is a Regional Park managed by the Department of Conservation and Land Management (CALM). The management plan for the Lake has inputs from CALM, Department of Planning, Water Corporation, City of Stirling, Birds Australia, W.A. Gould League, Habitat Herdsman, the public and the Environmental Protection Authority (EPA).

nesting sites, shade and protection. In parts of the Lake, paperbark is replacing bulrush and in time the Lake may become a paperbark swamp. Feral animals such as foxes, cats, mice, finches, mallards, geese, carp, yabbies, goldfish and koi fish exist in the lake environment, and how these will be managed needs careful Nearly 10 000 trees have been planted on the northeast corner of the Lake using local seed. The Lake animals need more trees for consideration

Donations and volunteers

The WA Gould League relies on donations and entry fees to run the Wildlife Centre. Your donation will help provide information and services for school children, the WA community and environmental

Volunteers are always needed to help at the Centre. If you would like to help, please contact:

Western Australian Gould League Inc Herdsman Lake Wildlife Centre Cnr Selby & Flynn Streets Tel (08) 9387 6079 Fax (08) 9387 3492

Website www.wagl.starwon.net.au

