

## Shark Bay's World Heritage Values

What features contributed to Shark Bay's World Heritage listing? Here is a list of Shark Bay's values that contributed to each of the four natural criteria for World Heritage listing.

### 1. Outstanding examples representing the major stages of the Earth's evolutionary history.

- Stromatolites and microbial mats of Hamelin Pool
- Hamelin Pool and L'haridon Bight and Holocene deposits

### 2. Outstanding examples representing significant ongoing geological process, biological evolution and man's interaction with his natural environment.

#### Marine environment

- Unique hydrological structure, banks and sills, steep salinity gradients, three biotic zones
- Faure Sill
- Hypersaline environment of Hamelin Pool
- Microbial communities
- *Fragum erugatum* shell deposits
- High genetic biodiversity (eg snapper, venerid clams, bivalves)
- Seagrass meadows and their role in the evolution of the marine environment
- Wooramel seagrass bank, expanse of meadows and diversity of seagrass species
- Carbonate deposits and sediments
- Northern limit of transition region between temperate and tropical marine environments, resulting in high species diversity (eg 323 fish, 218 bivalve and 80 coral species).

#### Terrestrial environment

- Botanical province transition zone
- Range limits (145 plants at northern limit, 39 species at southern limit and 28 endemic plants)
- Isolation of fauna habitats on islands and peninsulas resulting in survival of threatened species
- Range limits and fauna species richness - 100 reptile species (9 endemic), 230 bird species - 35% of Australia's total
- Species evolution illustrated in rufous hare-wallaby and banded hare-wallaby.



*The *Fragum erugatum* shell deposits at Shell Beach are a World Heritage value.*

### 3. Superlative natural phenomena, formation or features, for instance, outstanding examples of the most important ecosystems, areas of exceptional natural beauty or exceptional combinations of natural and cultural elements.

- Stromatolites
- Hypersaline environment of Hamelin Pool
- Faure sill
- Wooramel seagrass bank
- Coastal scenery - Zuytdorp Cliffs, Dirk Hartog Is., Peron Peninsula, Heirisson & Bellefin Prongs
- Fragam beaches of L'hardion Bight
- Inundated birridas and lagoons such as Big Lagoon
- Strongly contrasting colours of the dunes, beaches and adjacent ocean of Peron Peninsula
- Abundance of marine fauna (dugongs, dolphins, sharks, rays, turtles and fish)
- Annual wildflower display.



*Peron Peninsula and its contrasting colours are an example of exceptional natural beauty.*

### 4. The most important and significant natural habitats where threatened species of animals or plants of outstanding universal value still survive.

- Five of Australia's 26 endangered mammals (Shark Bay mouse, banded hare-wallaby, rufous hare-wallaby, western barred bandicoot and burrowing bettong) survive in Shark Bay.
- Bernier Island subspecies of ash-grey mouse
- 12 threatened reptiles (eg Baudin Island skink and woma python)
- Endemic sandhill frog
- 35 migratory bird species
- Threatened thick-billed grasswren
- Endemic Dirk Hartog Island subspecies of the southern emu-wren
- Dugong (approx ten percent of the world's population)
- Humpback whales
- Loggerhead and green turtles.