TRANSPORT, HANDLING, HUSBANDRY OF SEABIRDS - Libby Hall
NWCC WORKSHOP NOTES - July 2004

Identification
Owing to the specialised needs of many seabirds species identification at least to the family level is necessary for appropriate transport, treatment and housing.

Procellariiformes:
Albatrosses, petrels and shearwaters. Tube-nosed seabirds with hooked bills, webbed feet and musky odour. External nostrils allow breathing with the bill closed.

Pelicaniformes:
Pelicans, gannets, cormorants, darters, frigatebirds and tropicbirds. No external nostrils so breathe through corners of mouth. Pelican nares partially blocked. Four toes pointing forward and joined by webbing.

Ciconiiformes:
Heron, Ibis, Stork. Wading birds, long legs, long necks, long bills. Four elongated toes with three toes pointing forward and hind toe pointing back. No webbing.

Charadriiformes:
Migratory and resident waders, shorebirds, gulls and terns. Sandpipers, snipes, curlews, godwits, stints – length and shape of bills diagnostic. Bills longer than length of head and most have three toes pointing forward with small toe at back (exception is Sanderling). No webbing. Plovers and dotterels – bills shorter than length of head and usually three forward pointing toes without a toe at back. No webbing. Resident waders, lapwings and plovers included in this group. Gulls, terns and skuas posses three forward pointing toes joined by webbing. Resident shorebirds incl stone curlews and oystercatchers.

Transport
Temperature: 25-27 C. Avoid heat of day and intense cold. Some species become heat stressed easily.
Ventilation: Well ventilated, not stacked together.
Noise: No radios, loud noises, dogs, children, traffic (edge of road).
Transport birds individually. Not prolonged. Avoid feeding prior to transport.
Boxes: Cardboard with floor covering that does not slip. Avoid feather damage.

Handling
Immobilise dangerous parts first then hold body gently. Holding too tightly causes suffocation. Hold at waist level not near face. Hold birds with long legs at top of femur. Protect handler’s eyes. Towels needed to wrap around wings and body. When deciding handling techniques for different species consider anatomical info in ID section re nostrils etc.

Intensive Care Housing
Critically ill patents require temperature controlled, warm, quiet, dark environment. Rubber matting or towels on floor. Bedding changed frequently. Large enough to stand and stretch – no feather damage. Consider Aspergillosis and Bumblefoot.
**Nutrition**
Fluid therapy. Most seabirds will require rehydration after transport and if in debilitated state. Fluids at rate of 1 ml/100g via feeding tube. Oral solutions such as Spark, Vytrate, Lectade can be used. Commercially processed liquid diets for debilitated cats can be used (a/d) or blended fish stomach tubed 3x daily. As bird’s strength improves whole fish can be offered. Most will not recognise dead fish and so forced feeding will be necessary.

Fish to be fed will depend on species, size and preferences. Thorough knowledge of the bird’s wild diet needed. Weigh birds regularly to determine requirements. Feed twice or three times daily. Sea tabs required when feeding frozen fish. Waders and herons will require insects, earthworms, crustaceans, maggots.

**Rehabilitation**
Acclimatisation, Waterproofing, salt tolerance. Birds will require access to outside enclosure with pond and suitable flooring. Rubber matting, towels, sponge rubber to prevent bumblefoot (pressure sores on feet).

Feathers need to be completely waterproof – water should run off in beads, downy feathers stay dry, birds retains body temperature, floats high in water. Protect feathers and allow access to water and encourage preening. Examine preen gland to ensure full function.

Salt tolerance – pelagic birds possess salt gland which allows them to drink salt water and excrete salt. When kept in fresh water for more than 2 weeks the gland can atrophy. Salt tablets can be administered at rate of 100 mg/kg body weight per day in fish several days prior release. Secretions of salt should be evident on bill.

**Fitness**
Exercise regimes important and may require making birds flap wings (raising up and down in hand), running water into pool to encourage swimming, food placed in several areas, encouraging them to swim and fly etc.

**Normal Behaviour.**
Food acquisition, Interaction with conspecifics, Predator avoidance, Navigation in complex environment, Nest construction, Defining territories.

**Release**
Ensure physical and behavioural assessment
Veterinary check
Permission from wildlife authority
Release site suitability
Identification and post-release monitoring.

**NB:** These notes are for NWCC workshop only and not for other distribution. Summary of conference papers on Seabirds for Marine Wildlife Proc 335.