
Australian Animal Welfare Standards and Guidelines

Exhibited Animals – Ratite

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www.australiananimalwelfare.com.au

www.zooaquarium.org.au/

www.mincos.gov.au

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Introduction

Purpose

The principal purpose of this document is to describe standards and guidelines that ensure the welfare and security of *ratites* used for *exhibition purposes*.

This document promotes measures and conditions that, if implemented, would see exhibited *ratites* kept to the same standard throughout Australia.

The document considers a broad range of operational issues facing *facilities* that keep *ratites* for *exhibition purposes*. Failure to address these issues could result in adverse animal welfare and security outcomes.

Scope

These standards and guidelines apply to those people and industries responsible for the care and management of:

- *ratites* kept for *exhibition purposes* at *facilities*, i.e. for display, conservation, education and entertainment;
- *ratites* during their temporary removal from a *facility*; and
- *ratites* during their transport to or from a *facility*.

These standards and guidelines do not apply to:

- wild *animals* (i.e. free-living and not confined to a *facility* by an *enclosure*, a leash or by management practices);
- the keeping of *animals* solely for the purposes of feeding to other *animals* at the *facility*;
- feeding of wild *animals*;
- *animals* kept for *animal* competitions, horse racing and sporting events, wildlife farming and domestic *animal* farming;
- wildlife rehabilitation of *animals* that are not displayed to the public at the *facility*;
- *animals* at pet shops; or
- circuses and mobile exhibitors.

These standards and guidelines should be considered in conjunction with other requirements for *animals* kept for *exhibition purposes*, and related Commonwealth, state and territory legislation for:

- *animal* welfare;
- exhibiting *animals*;
- pest control; and
- nature conservation.

Where legislation requires a higher standard than these standards, the higher standard will apply.

Interpretation

- **Objective** – the intended outcome(s) of a section of the standards and guidelines.
- **Standards** – the acceptable *animal* welfare and security requirements designated in this document. They are requirements that must be met under law with respect to *animals* kept for *exhibition purposes*.

The standards are intended to be clear, essential and verifiable statements. However, not all issues are able to be well defined by scientific research or are able to be quantified. Standards use the word “must”. Non-compliance with one or more standards will constitute an offence under law.

They are presented in a box and are numbered consecutively with the prefix ‘S’.

- **Notes** – provide background and guidance on interpreting the standards and guidelines.
- **Guidelines** - complement the standards by providing advice and/or recommendations to achieve desirable *animal* welfare and security outcomes. Non-compliance with guidelines does not constitute an offence under law.

They are numbered consecutively with the prefix 'G'.

Document organisation

These *taxon standards* contain standards and guidelines that apply to the keeping of a specific *animal* group for *exhibition purposes at facilities*. They are additional to the standards and guidelines in the *Australian Animal Welfare Standards and Guidelines. Exhibited Animals – General* which apply to all *animals* kept for *exhibition purposes at facilities*.

- ***Taxon standards must always be read in conjunction with the Australian Animal Welfare Standards and Guidelines. Exhibited Animals – General.***

The *Australian Animal Welfare Standards and Guidelines. Exhibited Animals – General* contain the following sections:

- Introduction;
- Definitions;
- Responsibilities;
- Security;
- Enclosures;
- Dietary and water requirements;
- Health and wellbeing;
- Reproductive management;
- Euthanasia;
- Capture and restraint;
- Training;
- Interactive programs;
- Transportation; and
- Animal identification and records.

The same section headings are used in these *taxon standards*. An additional *taxon* preface section follows this Introduction. Where a section of these *taxon standards* does not include any standards or guidelines that are additional to those in the *Australian Animal Welfare Standards and Guidelines. Exhibited Animals – General*, the section includes the following statement: 'This section has been deliberately left blank'.

Definitions are given in the Definitions section of this document. These definitions are additional to those in *Australian Animal Welfare Standards and Guidelines. Exhibited Animals – General* that also apply to these *taxon standards* unless otherwise stated. Defined words in this document are italicised.

Taxon preface

Ratites

The Order Struthioniformes includes five Families:

- Apterygidae (kiwis) – five species (*Apteryx* spp.);
- Casuariidae (cassowaries) – three species (*Casuarius* spp.);
- Dromaiidae (emus) – one species (*Dromaius novaehollandiae* spp.);
- Rheidae (rheas) – two species (*Pterocnemia pennata* and *Rhea americana*)
- Struthionidae (ostrich) – one species (*Struthio camelus*).

However, as no kiwis are currently maintained in Australian zoological collections, kiwis are not within the scope of this document. This *taxon standard* relates only to cassowaries, emus, rheas and ostriches.

The name 'Ratite' comes from the large plate-like breast bone which is thought to resemble the shape of a raft. The lack of a prominent keel for deep muscle attachment and poorly developed wings compared to body size prevent the *ratites* from flying. They compensate for lack of flight by having large powerful legs and can run quickly.

Emus are endemic to Australia and can be found in all habitats on the mainland except rainforest. Three species of cassowary occur in Papua and New Guinea, with the distribution of one subspecies of the southern cassowary (*Casuarius casuarius johnsonii*) extending to the rainforests of tropical northern Queensland. Emus tend to be *gregarious* and partly nomadic, while the southern cassowary is a solitary *animal* and is territorial over an extensive home range.

The ostrich inhabits open and arid plains over most of Africa. It is *gregarious* and often forms small groups consisting of a single male with several females. Rheas are found in South America and have a loosely cohesive social structure. Both the ostrich and rhea have relatively well developed wings which they use in courtship and aggressive displays.

Diets of *ratites* vary from the primary grazing/browsing habits of ostriches (eating grass, leaves of shrubs and trees, succulents, seeds and berries), through the more omnivorous emus' opportunistic selection (including high quality green plant material, seed heads, berries, ripening fruit and insects), to the predominantly frugivorous cassowaries (which will also eat fungi, insects, frogs and other small *animals*).

Ratites can become defensive during the breeding season. In cassowaries, emus and rheas, the male incubates the eggs and cares solely for the young, while ostriches share this responsibility.

Definitions

Capture myopathy: a syndrome of complex primary and secondary pathological changes in many organs, particularly in skeletal and cardiac muscle, which may:

- i. be precipitated by prolonged muscular exertion, e.g. pursuit by predators or during capture and *restraint*;
- ii. sometimes occur as a result of fear and anxiety without overt physical activity; e.g. during close confinement or placement in an unfamiliar environment; and
- iii. cause acute death or lead to chronic debility.

Ratite: cassowary, emu, ostrich and rhea.

Wallow: a depression, pool or pit consisting of water, snow, mud, dust, or the like, in which animals can roll or lie.

All Definitions cover the singular, plural and all variations of the word.

1 Responsibilities

Objective

Operators and staff understand their responsibilities and collectively manage the *facility* to ensure the health, welfare, safety and security of animals.

General

Standards

S1.1 All standards in *Australian Animal Welfare Standards and Guidelines. Exhibited Animals – General* relating to *dangerous animals* apply to adult cassowaries and male ostriches unless assessed as otherwise by a *proficient keeper*.

Guidelines

G1.1 A *ratite* that displays aggressive behaviours towards humans should be considered a *dangerous animal*.

2 Security

Objective

Animals are held securely to ensure their welfare and prevent pest establishment. Access by unauthorised persons and escape of *animals* is prevented.

This section has been deliberately left blank.

3 Enclosures

Objective

Enclosures are designed, constructed and maintained to ensure the welfare, safety and security of *animals*.

General

Standards

- S3.1 The *operator* must ensure *ratites* are assessed by a *proficient keeper* as having a suitable temperament prior to being housed in a walk-through *enclosure*.
- S3.2 The *operator* must ensure a walk-through *enclosure* housing *ratites* provides at least one visitor exclusion area where *animals* are able to withdraw from visitor contact. The visitor exclusion area must be a minimum of 25% of the minimum required *enclosure* floor area contained in standards 3.7.
- S3.3 Unless otherwise approved by the relevant *government authority*, the *operator* must ensure *enclosures* have a fence of at least the following height:
- i. ostriches and cassowaries – 1800 mm;
 - ii. emus – 1500 mm;
 - iii. rheas – 1200 mm.

Guidelines

- G3.1 Walk-through *enclosures* should be monitored to prevent inappropriate behaviour by visitors or *ratites*.

Gates and Doors

Guidelines

- G3.2 Gates to walk-through *enclosures* housing *ratites* should be fitted with self-closing devices.
- G3.3 Walk-through *enclosures* housing *ratites* should have a double gate entry system to minimise the risk of escape.

Enclosure Furniture

Standards

- S3.4 The *operator* must ensure *ratite enclosures* include a species appropriate wallow.
- S3.5 The *operator* must ensure that cassowaries are provided with shade.

Guidelines

- G3.4 *Enclosures* housing cassowaries should contain trees and shrubs.
- G3.5 Provision of *wallowing* opportunities may include:
- i. dust baths;
 - ii. shallow water ponds; and
 - iii. mud pools.

Spatial Requirements

Standards

- S3.6 The *operator* must ensure that the minimum *enclosure* floor area for adult *ratites* is:
- i. ostriches – 400 square metres for up to two specimens, plus 150 square metres for each additional adult; and
 - ii. emus, cassowaries and rheas – 200 square metres for a single specimen, plus 100 square metres for each additional adult.

4 Dietary and water requirements

Objective

Animals are provided food and water of an appropriate quality and quantity to maximise their health and wellbeing.

Food

Guidelines

- G4.1 *Ratite* diets should contain or be supplemented with adequate amounts and appropriate ratios of calcium and phosphorous (for skeletal growth and egg development) and vitamins.

Water

Standards

- S4.1 The *operator* must ensure *ratite enclosures* provide a source of drinking water in addition to the *wallow*.

5 Health and wellbeing

Objective

The health and wellbeing of *animals* is maximised, and *disease* and *disease* transmission is prevented.

General

Guidelines

G5.1 Juvenile *ratites* should be encouraged to exercise daily.

Enrichment

Guidelines

G5.2 *Enrichment for ratites* includes:

- i. age and species appropriate opportunities for social interaction with conspecifics;
- ii. foraging and grazing opportunities; and
- iii. scatter feeds.

Quarantine

Standards

S5.1 The *operator* must ensure newly acquired *ratites* undergo a minimum 30 day period of *quarantine* unless advised otherwise by a *veterinarian*.

6 Reproductive management

Objective

Animal breeding is managed to maintain the genetic integrity, sustainability and/or diversity of the species and to prevent the production of unplanned surplus *animals*.

Standards

- S6.1 The *operator* must ensure that written procedures are developed, maintained and implemented for the collection of eggs.
- S6.2 The *operator* must not display or keep for display more than 20 individual emus at any one time unless specifically granted an exemption in writing by the relevant *government authority*.

Guidelines

- G6.1 Where *ratites* are nesting close to a fence in public viewing areas, visitors should be excluded from the area and/or visual barriers should be erected to reduce disturbance to the *animals*.

7 Euthanasia

Objective

If an *animal* is to be killed, it is done humanely.

Guidelines

G7.1 The recommended method of *euthanasia* for *ratites* is barbiturate overdose.

8 Capture and restraint

Objective

Animals are captured and *restrained* in a manner that ensures *animal* safety and minimises negative impacts on the *animal*.

Standards

- S8.1 The *operator* must ensure a *proficient keeper* is present during, and supervises the capture and *restraint* of an adult *ratite*.
- S8.2 The *operator* must ensure written procedures for capture and *restraint* of *ratites* deal with minimising the risk of *capture myopathy*.

Guidelines

- G8.1 Acceptable methods of *ratite* capture and *restraint* may include the use of:
- i. capture bags, and/or hoods;
 - ii. deep hoop nets;
 - iii. a race made of hessian or similar material; and
 - iv. pole syringe or dart administration of an appropriate sedative or anaesthetic agent by or under the direction of a *veterinarian*.
- G8.1 Manual *restraint* usually involves approaching the bird from behind and applying enough downward pressure to cause the bird to sit with both legs folded directly underneath.
- G8.2 During manual *restraint ratites* should be sternally recumbent to minimise the risk of injury to the *animal*.
- G8.3 The potential for *ratites* to cause serious injury to themselves by kicking or jumping and flailing their legs should be considered during capture and *restraint* procedures.
- G8.4 While capturing *ratites*, shields or herding boards should be readily available.

9 Training

Objective

Animal training is humane and beneficial to the *animal's* health, safety, behavioural and management needs.

This section has been deliberately left blank.

10 Interactive programs

Objective

Animal welfare, safety and security are maintained during *interactive programs* so that people have a positive experience and have an enhanced appreciation of *animals*.

This section has been deliberately left blank.

11 Transportation

Objective

Animal welfare, safety and security are maintained during *transport*.

Guidelines

G11.1 Prior to the journey *ratites* should be conditioned to accept the confinement of *transport*.

12 Animal identification and records

Objective

Animals are identified by standardised means and have a detailed written history.

Animal Identification

Standards

S12.1 Ratites younger than 3 months of age are exempt from the requirement to have *individual permanent identification*.

Guidelines

G12.1 A passive integrated transponder (PIT) is the recommended form of *individual permanent identification* for *ratites*.

G12.2 The standard location for PIT insertion in *ratites* is:

- i. adults – lateral left neck; and
- ii. chicks – the pipping muscle located on the anterodorsal portion of the neck.

Records

Guidelines

G12.3 Records kept for *ratites* used in demonstrations and *interactive programs* should include:

- i. *interactive handling* rotation schedule;
- ii. feeding; and
- iii. behavioural issues.