

Transfer of the Chilean population of *Rhea pennata pennata* from Appendix I to Appendix II. Proponent: Chile.

Summary: *Rhea pennata pennata* is a large flightless bird, around 1 m in height and weighing up to 20 kg, occurring in Patagonian steppe at altitudes below 2 000 m in southern Chile and south and south-west Argentina. It is one of three subspecies of the Lesser Rhea, the others being *R. p. garleppi* from north-west Argentina, south-west Bolivia and southern Peru, and *R. p. tarapacensis* from northern Chile, both of which are regarded as threatened. Rheas attain maturity at between two and three years of age. Several females lay their eggs in a single nest; the resulting clutch (normally 10-30 eggs) is incubated by a male who also tends the young. Females may lay in more than one nest in the course of a single season. From the limited survey data available, the Chilean population of *R. p. pennata* appears to be stable or increasing. Lesser Rheas are exploited for their eggs, meat, leather and feathers, and there is potential international trade in these products. The species as a whole was listed in Appendix II in 1975 and subsequently transferred to Appendix I in 1979. The Argentinean population of *R. pennata pennata* was transferred from Appendix I to Appendix II in 2000. If accepted, the current proposal will result in all known wild populations of *R. p. pennata* being included in Appendix II, while other populations of *Rhea pennata* (i.e. the two subspecies *R. p. garleppi* and *R. p. tarapacensis*) will remain in Appendix I. The other species of rhea, the Greater Rhea *Rhea americana*, is currently included in Appendix II.

Analysis With an estimated population approaching 50 000, believed to be stable or increasing, and an area of distribution of around 17 000 km², the Chilean population of *Rhea pennata pennata* does not appear to meet the biological criteria for inclusion in Appendix I. The precautionary measures set out in Annex 4 of Resolution Conf. 9.24 should therefore be considered. Based on the stability and monitoring of the wild population and the fact that Chile intends to trade only in specimens from captive breeding operations, the transfer from Appendix I to Appendix II of this population is consistent with the provisions of Annex 4, section B 2b) of Resolution Conf. 9.24.

Means to ensure satisfactory implementation of Article IV, particularly of non-detriment findings, is unclear due to concerns about implications for the other endangered subspecies. In terms of enforcement, Chile has a history of population monitoring and control of poaching. Provided that Chile can demonstrate that the founder stock was legally obtained and that a technique for breeding to second generation has been developed, it currently has the option to trade captive-bred birds from Appendix I. Arguably, this might ease concerns about the other endangered subspecies. On the other hand, if the micro-chipping and other planned management techniques can be guaranteed, transfer to Appendix II would probably be easier in the long run. One concern regards the origin of stock for breeding and how many will be taken from the wild.

Following Resolution Conf. 9.24 Annex 3, split-listings, particularly on the basis of subspecies, should be avoided. However, *Rhea pennata* is already split-listed and management plans for the trade in captive-bred specimens, which involve the use of microchips, may reduce problems associated with enforcement.

Supporting Statement (SS)	Additional information
<p>The Lesser Rhea has three subspecies: <i>Rhea pennata pennata</i>, the subject of this proposal, <i>R. p. garleppi</i> and <i>R. p. tarapacensis</i>.</p> <p>Synonyms for the species are <i>Rhea darwini</i> and <i>Pterocnemia penatta</i>.</p> <p>Chile.</p>	<p style="text-align: center;"><u>Taxonomy</u></p> <p style="text-align: center;"><u>Range</u></p> <p style="text-align: center;"><u>IUCN Global Category</u></p> <p style="text-align: center;">Rhea pennata is classified as LR/nt.</p>

Supporting Statement (SS)	Additional information
Biological criteria for inclusion in Appendix I	
<u>A) Small wild population</u>	
(i) Population or habitat decline; (ii) small sub-populations; (iii) one sub-population; (iv) large population fluctuations; (v) high vulnerability due to biology or behaviour	
<p>Annual Agriculture and Livestock Service census surveys have been carried out since 1996; extrapolation from these would indicate a current population of around 50 000. Density estimates vary from 1.3-8 individuals per km² with the highest density in Torres del Paine National Park.</p>	<p><i>The great majority of the population (99%) is on agricultural land.</i></p> <p><i>The transect-based method used for the annual census appears to be described twice with differing specifications, but both comprise around 1 200 km within the range of the Lesser Rhea.</i></p>
<u>B) Restricted area of distribution</u>	
(i) Fragmented or localised population; (ii) large fluctuations in distribution or sub-populations; (iii) high vulnerability due to biology or behaviour; (iv) decrease in distribution, population, habitat or reproductive potential	
<p>The current area of distribution is estimated to be 993 500 ha. An additional 738 500 ha of favourable and secondary habitat is described as having potential for the species on Tierra del Fuego. The SS suggests that habitat has been degraded by the introduction of sheep, but that the taxon has gradually adapted to the new conditions, although at lower densities.</p>	<p><i>Bouzat (2002) states that the area of potential habitat may be overestimated in two ways: potential habitat on Tierra del Fuego (where the species has been introduced) is not part of the historical native range of the species and is of debatable value to the Lesser Rhea, and some of the agricultural areas may be unrealistic as potential habitat.</i></p>
<u>C) Decline in number of wild individuals</u>	
(i) Ongoing or historic decline; (ii) inferred or projected decline	
<p>Population density shows an overall upward trend, from a low of 1.29 individuals per km² in 1976 to 5.37 per km² in 1999 and 5.13 per km² in 2000.</p> <p>There is no indication from the SS of current or projected decline, although monitoring has only been taking place for a short period.</p>	<p><i>Bouzat (2002) expresses concern about the abundance and trend estimates. It is not clear from the data presented that there has been an increase in abundance. The SS reports the minimum density for 1976 and the maximum density for 1999.</i></p> <p><i>It is not clear whether the annual register of Lesser Rheas began in 1976, or 1996 when regular censuses began. This has obvious important implications for population trends.</i></p> <p><i>TRAFFIC South America (2002) agree that the population shows signs of recovery, with average population densities increasing from one per km² in the late 1970s to over three per km² by 2000.</i></p>
<u>D) Status suggests inclusion in Appendix I within 5 years</u>	

Trade criteria for inclusion in Appendix I

The species is or may be affected by trade

There is tourist interest in the purchase of eggs. Eggs and the meat are thought to be consumed nationally at low levels, and there could, in the future, be an international market for the meat. The feathers are also used to make feather dusters.

Between 1978 and 1987, 25 live individuals of Chilean origin were traded to zoos. This number increased to 57 between 1987 and 1997.

TRAFFIC South America (2002) note that no data have been found regarding illegal international trade.

It is difficult to draw conclusions about the impact of trade on the species. Bouzat (2002) suggests that given the low number of individuals reported in most captive breeding populations (point five of the SS), there might be an initial demand of wild specimens to start viable captive populations and selection programmes.

Supporting Statement (SS)	Additional information
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Precautionary Measures

B2a: CoP satisfied with: implications for other species, Annex 4, Res. Conf 9.24

According to the SS, implementation of the proposal is not likely to stimulate trade in, or cause enforcement problems for, any other species included in Appendix I.

The SS asserts that the proposed management system (see below) will effectively exclude the other two subspecies of *Rhea pennata* from commerce.

B2b: CoP satisfied with: implementation of Article IV and enforcement controls, Annex 4, Res. Conf 9.24

According to the SS, satisfactory implementation by the range States should not be difficult to achieve. Argentina, the other range State of the subspecies, which has a very similar management system, supports the Chilean proposal.

Although not very clearly stated at the outset, the proposal deals only with the international trade in captive bred Lesser Rheas. All captive breeding facilities are registered by the Agriculture and Livestock Service who also monitor the wild population. Captive bred specimens will be differentiated from wild animals using integrated microchips implanted in all animals surviving to the age of four months. Appropriate enforcement controls and compliance with the requirements of the Convention are, therefore, put forward in the SS.

Males mate with multiple females who lay a total of 10-30 eggs in the same nest (Fjelds  and Krabbe, 1990). Males incubate and rear the chicks to six months. Mortality in the wild has been estimated at 75% from hatching to three months (Balmford, 1993). Juveniles stay in the parental group until sexual maturity is reached at three years. Longevity can reach 20 years in the wild and 40 years in captivity (del Hoyo, 1992).

There are no data yet available for trade in the Argentinean population of R. p. pennata, which was transferred from Appendix I to Appendix II in 2000.

There is some question about the consistency with which the Agriculture and Livestock Service (SAG) register and monitor captive breeding facilities if outside Region XII. Only captive breeding facilities inside this Region are listed as authorised.

TRAFFIC South America (2002) comments that despite the use of microchips, there is no means of determining whether products and sub-products originated from captive-breeding operations or from the wild.

A representative of SAG notes that under current Chilean law, SAG inspects captive breeding facilities twice a year, to check, control and issue CITES permits. He believes therefore that adequate controls are already in place.

Other information

Threats

The SS notes that important factors in the historic decline in Lesser Rhea numbers have been hunting for meat, egg collection, and range disruption due to fencing, human settlement, mining and oil exploitation. Incidences of extreme weather, such as the harsh winter of 1995, have further impact. Predators, including feral dogs, pumas (*Felis concolor*), and foxes (*Desicyon griseus* and *Dusicyon culpaeus*), contribute to high natural mortality levels, particularly in protected areas where the native carnivores are less persecuted.

Other threats include hunting for leather and as agricultural pests (Lozana, 1978; Mares and Oida, 1984; Bouzat, 2001).

Bouzat (2002) comments that hunting and egg collecting may pose a threat if the population is transferred to Appendix II.

Conservation, management and legislation

Conservation measures centre on the prohibition of hunting. There are also initiatives of the Agriculture Ministry to recover degraded land and to foster organic methods of livestock production, which may

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<p>be beneficial to Lesser Rheas.</p> <p>The wild population is monitored in an annual census.</p> <p>Relevant laws are listed in the SS including the 1998 regulation of hunting. Details are not provided.</p>	

Similar species

The subspecies Rhea penatta tarapacensis is found in northern Chile as is the Common Rhea Rhea americana but they are distinguishable by differences in their colouration and the number of scutes on the front of the tarsi (del Hoyo, 1992, Fjelds  and Krabbe, 1990).

Bouzat (2002) indicates that specimens of Pterocnemia can be easily distinguished from the sister species Rhea americana. It may be more difficult to clearly identify P. p. pennata from the other two subspecies, particularly when it comes to dealing with parts and derivatives. Some form of marking system may be required.

Captive breeding

Ten captive breeding operations of the Chilean Lesser Rhea are listed in the SS. The oldest operation was founded in 1980 and houses 13 animals. The largest facility currently houses 200 animals. In total, 520 animals are listed as held in the ten facilities, but only seven of these are listed as "authorised operations", those within Region XII.

Problems with captive breeding include inbreeding and injuries caused by panic when faced with stress in tight closed spaces, and the trade-offs between quick weight gain versus skeleton development.

TRAFFIC South America (2002) comments that since last year, three additional farms have been created but have no specimens yet. The proposal does not mention limiting the number of captive breeding farms or the process of establishing new ones. To avoid inbreeding, new stock from the wild will be required at some point. SAG plans to allow collection every three years in which farmers can take between 20 and 22 eggs. The other option would be an exchange between farms (Iriarte, 2002).

Other comments

If all trade is to be in captive-bred individuals and as captive breeding to second generation has been demonstrated, then the proponent could register to trade under an Appendix I listing using certificates for captive breeding for commercial purposes (see Article VII Para. 4 and Resolution 10.13).

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