

EAZA Yearbook 2007/2008

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<http://www.eaza.net/activities/cp/Pages/yearbook.aspx>

EAZA Ciconiiformes and Phoenicopteriformes TAG

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**EAZA Ciconiiformes/Phoenicopteriformes TAG
Annual Report 2007 - 2008**



1. Information on organisation, structure and activities of the TAG

TAG chair: Catherine King, Fuengirola king.koen@telefonica.net

TAG vice-chair: John Ray, Twycross

TAG members: Christiane Böhm (Innsbruck)
Andrea Bracko (Zagreb)
Koen Brouwer (Valencia-parc)
Simon Bruslund Jensen (Walsrode)
Miguel Bueno Brinkmann (Madrid-zoo)
Mariano Cuarado (Jerez-frontera)
Esmeralda Dols (Epe)
John A. Ellis (London)
David Jeggo (Jersey)
Achim Johann (Rheine)
Joost Lammers (Alphen)
Bernd Marcodes (Koln)
Flemming Nielsen (Kobenhavn-zoo)
Tim Savage (London)
Wineke Schoo (Arnhem)
Adelheid Studer -Thiersch (Basel)
Ryszard Topola (Lodz)
Anthony Tropeano (Colchester)
Xavier Vaillant (Pont-scorff)
Rob van Glabbeek (Hilvarenbeek)
Roger Wilkinson (Chester)

TAG advisors:

General

Chris Brown, Association of Zoos and Aquariums , AZA CICAG TAG chair

Chris Hibbard, Taronga Zoo

Nigel Jarrett, British and Irish Association of Zoos and Aquariums, BIAZA Waterfowl and Flamingo TAG chair

David Jeggo, Durrell Wildlife Conservation Trust

Behavioural

Taxonomy

Veterinary

Andrew Greenwood, International Zoo Veterinary Group

Miguel Quevedo, Zoo Jerez

Friederike von Houwald, Zoologischer Garten Basel

Nutritional

Andrea Fidgett, North of England Zoological Society

Joeke Nijboer, Koninklijke Rotterdamse Diergaarde Blijdorp

Conservation

Felicity Arengo, Non-EAZA Institutions, Flamingo Specialist Group, Western Hemisphere Coordinator

Arnaud Bechet, Non-EAZA Institutions, Flamingo Specialist Group, Eastern Hemisphere Coordinator

Brooks Childress, Non-EAZA Institutions, Flamingo Specialist Group, Global Coordinator

Malcolm Coulter, Non-EAZA Institutions, Storks, Ibises and Spoonbills, New World

Jim Kushlan, Non-EAZA Institutions, Heron Specialist Group

Philip Seddon, Non-EAZA Institutions, Bird Section Chair, Reintroduction Specialist Group

Willem van den Bossch, Non-EAZA Institutions, Stork, Ibis and Spoonbill, Old World

Research

Educational

Current EEPs: Oriental white stork (*Ciconia boyciana*)

Waldrapp ibis (*Geronticus eremita*)

Current ESBs: Goliath heron (*Ardea goliath*)

Abdim's stork (*Ciconia abdimii*)

Black stork (*Ciconia nigra*)

Saddle-billed stork (*Ephippiorhynchus senegalensis*)

Marabou stork (*Leptoptilos crumeniferus*)

Yellow-billed stork (*Mycteria ibis*)

Hamerkop (*Scopus umbretta*)

TAG meeting:	Date of last meeting: 16 September 2008 Last meeting hosted at Antwerpen Zoo (Royal Zoological Society of Antwerp).
Regional Collection Plan:	Has a RCP been published? Yes Next edition to be published in 2011.
Publications:	King, C.E. 2007. Flamingos in captivity. Thoughts on how and why. Abstract booklet and program schedule, The IV International Symposium on Breeding Birds in Captivity. King, C. E. 2008. A hypothetical husbandry point system for breeding flamingos in captivity, pp 57-61. In: Childress, B., Arengo, F. and Bechet, A. (eds.) 2008. Flamingo, Bulletin of the IUCN-SSC/Wetlands International Flamingo Specialist Group, No. 16. December, 2008. Wildfowl & Wetlands Trust, Slimbridge, UK. King, C. E. 2008. The potential contribution of captive flamingos to research, pp 61-64. In: Childress, B., Arengo, F. and Bechet, A. (eds.) 2008. Flamingo, Bulletin of the IUCN-SSC/Wetlands International Flamingo Specialist Group, No. 16. December, 2008. Wildfowl & Wetlands Trust, Slimbridge, UK. King, C.E. 2008. Savannah exhibits; developing a new formula. EAZA News 63. King, C.E. 2008. Husbandry, collection planning and the role of TAGs; a birdseye overview. EAZA News 64. Simpson, N. 2007. Hand-rearing flamingos at Bristol Zoo, UK , can be downloaded at http://www.flamingoresources.org/literature.html

2. Information on developments during 2007 - 2008

- The Ciconiiformes and Phoenicopteriformes TAG meeting in Alphen on 16th March 2007 was used to discuss the TAG mission and structure, as well as to present recent student research with flamingos and Oriental white storks.
- The Ciconiiformes and Phoenicopteriformes TAG meeting in Jerusalem on 28th March 2008 provided an opportunity to discuss strategies to discourage pinioning of large Ciconiiformes and housing of Ciconiiformes with hoofstock, to encourage use of covered enclosures and transfer of flamingo eggs to institutions wishing to augment their flock size (presentation by Nigel Simpson, Bristol Zoo) and training of Ciconiiformes and Phoenicopteriformes to facilitate their movement to different enclosures for medical reasons, aggression or other management reasons.
- Worked closely with BIAZA to improve management of flamingos in Great Britain and Ireland.
- Provided comments on the draft International Single Species Action Plan for the Conservation of the Lesser Flamingo *Phoeniconaias minor*, Childress B, Nagy S & Hughes B. 2008. CMS/AEWA Technical Series.
- Andrea Bracko (Zagreb) agreed to regularly update an available and wanted list for flamingos, particularly to encourage zoos to trade flamingos to develop suitably sized single species groups.
- Worked closely with the Flamingo Specialist Group, represented by Rebecca Lee, to contribute to and promote the Flamingo Resource Centre <http://www.flamingoresources.org>.
- Developed a hypothetical husbandry point system for breeding flamingos in captivity.
- Assisted Copenhagen Zoo in carrying out a research project (A. Wendelbo Nielsen as investigator, supervised by Mads Bertelsen) investigating foot lesions in flamingos, with contributions of photos from 22 EAZA zoos.
- John Ray stepped down as Vice-chair of the Ciconiiformes and Phoenicopteriformes TAG.
- The Northern Bald Ibis *geronticus eremita* EEP was evaluated, and was deemed by participants, the TAG and the EEP Committee to be a very successful program.

3. TAG goals for 2009

- To further develop fund raising for in situ projects.
- To stimulate and support further research in foot lesions of storks, flamingo mortality and influence of pinioning and flight restraint by caging on condition of white storks.
- To further encourage the many flamingo holders to hold single species flamingo flocks composed of appropriate numbers.
- To further encourage flamingo holders to provide suitable flamingo enclosures.
- To encourage global management of species such as the shoebill stork and Madagascar crested ibis, in which no region has sufficient numbers to manage the species alone.
- To further encourage zoos to use training to manage difficult species such as the marabou stork.



Goliath heron

ESB Annual Report 2007 - 2008



1. Programme information

Goliath heron

Ardea goliath

ESB established in 2005.

Goal(s)

Percentage of gene diversity 90% saved in 100 years.

2. Programme personnel

European Studbook Keeper

Rob van Glabbeek (Hilvarenbeek)

3. Publications

Studbook

Recent edition: 2006

Next edition: 2010

Husbandry guidelines

Not yet published.

4. Status

Status and developments over the year 2007 - 2008

Goliath heron

Ardea goliath

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALPHEN	0.0.2	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.2	0.0.0	0.0.0
		BERLIN-TIERPARK	2.2.0	1.3.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.2.0	0.2.0	3.1.0
		HILVARENBEEK	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		KOLN	1.1.0	4.1.2 (0.0.0)	0.0.0	0.0.0	0.0.0	3.1.0	0.0.2	2.1.0
		KREFELD	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.3.0	1.0.0
		KREngLBACH	1.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.3.0
		Total (6)	6.11.2	5.4.2 (0.0.0)	0.0.0	0.0.0	0.0.0	3.3.2	0.6.2	8.6.0

Summary

Programme difficulties:

- The low numbers of Goliath herons in EAZA institutions is the biggest problem of this programme.

Programme recommendations:

- At this stage try to breed as many animals as possible.

Summary:

- Transfers of available birds out of EAZA institutions should be avoided. Cooperation with non-EAZA zoos and private holders might be necessary.



Oriental white stork

EEP Annual Report 2007 - 2008



1. Programme information

Oriental white stork

Ciconia boyciana

EEP established in 2001.

Goal(s)

Percentage of gene diversity 90% saved in 100 years.

2. Programme personnel

Species Coordinator

Catherine King (Fuengirola)

Species Committee members

Francesco Rocca (Agrate)

Joost Lammers (Alphen)

Bernhard Blaszkiewitz (Berlin-tierpark)

Steffen Patzwahl (Cambron-casteau)

Ryszard Topola (Lodz)

Lubov Kurilovich (Moskva)

Ulrich Schürer (Org-vdz)

Jo Gregson (Paignton)

Leszek Antkowiak (Poznan)

3. Activities

Species Committee

Last election: No election ever held.

Last meeting: 17 September 2008 Antwerpen

Conservation activities

- Reintroduction projects are ongoing in Japan and South Korea, some birds originating from EEP population are founders in these efforts.
- Two reintroduced pairs in Toyooka, Japan have now reproduced successfully in the wild.
- The project in South Korea is still in the preparation phase.

Research activities

The fact that two of the three pairs that bred in 2008 bred quite quickly after being put together (the Alphen pair within a couple of months and the Moscow pair during the following breeding season) suggests that it may be time to repair some of the birds that are not showing reproductive activities with the current partner, or that are alone, especially any egg-laying females

Research carried out in 2006 indicated that allopreening during the courtship period is a reliable sign of a good pair-bond. Further study of pair behaviours of non-breeding pairs presently together would be useful to determine if these pairs appear compatible and if so, where the reasons for lack of breeding success might lie.

4. Publications

Studbook

Recent edition: 2007

Next edition: N/A

Husbandry guidelines

Year not specified



Oriental white stork EEP Annual Report 2007 - 2008



5. Status

Status and developments over the year 2007 - 2008

Oriental white stork
Ciconia boyciana

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AGRATE	0.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.2.0
		ALPHEN	1.1.0	1.1.1 (0.0.1)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.3.0
	*	ARKHARA_NE	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.5	0.0.0	0.0.0	1.0.5
		BERLIN-TIERPARK	2.2.0	0.2.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.0.0	2.2.0
		CAMBRON-CASTEAU	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		COTTBUS_NE	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		LODZ	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		MOSKVA	2.2.0	0.0.2 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.2	2.1.0
	*	PAIGNTON	0.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		POZNAN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		WUPPERTAL	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		Total (11)	13.15.0	1.3.3 (0.0.1)	0.2.0	0.2.0	0.0.5	0.0.0	0.2.2	14.16.5

Summary

- Successful breeding in Alphen, Berlin Tierpark, and Moskva - first time since 2000.
- Two chicks (1.1) were foster-reared by white storks in Alphen in 2007.
- For the first time in the history of the EEP, three zoos, Alphen, Berlin-Tierpark and Moscow all produced chicks in 2008, unfortunately the chick at Alphen did not survive, and the chicks at Moscow died of a bacterial infection being older than six months of age. The two chicks at Tierpark Berlin were parent-reared. Eggs were produced in two other participant zoos, Wuppertal and Cottbus in 2008.
- The coordinator and studbook keeper made a list of suggested transfers based on discussions with EEP participants regarding their future wishes. These transfer recommendations were discussed and approved at the species committee meeting in 2008.
- Lubov Kurilovich (Moscow) agreed to contact the breeding station in Ankahara, Russia to see about the possibility of receiving wild caught birds.



Oriental white stork

EEP Annual Report 2007 - 2008



Notes

Difficulties

- More storks are needed for this EEP.
- New holders need to be identified.
- Oriental white storks are difficult to pair, and can be very aggressive.
- Unfortunately many of the Oriental white storks in the EEP are from one pair that bred in Walsrode.

Recommendations

- The storks now in Europe that are alone or are not in a good pair-bond should be moved around to achieve more potential good pairs. At this point it is felt to be more important to let brothers and sisters pair so that they can develop pair associated behaviours than to keep non-bonded storks together or storks alone.
- The coordinator and studbook keeper should try to obtain unrelated individuals from other regions.
- Fertility problems need to be addressed on a pair by pair basis. Artificial insemination is an option if necessary, more information on techniques is available from C. King.
- Holders of Oriental white storks are strongly advised to keep these storks full-winged, and in covered enclosures. Covering the enclosure also reduces chance of egg predation, as egg predation by crows has been witnessed. The storks can also then be kept full-winged, which is important for well-being and fertility.
- Enclosures should be designed for the huge size of this bird. Enclosures that are round or square offer better possibilities for flight than rectangular enclosures unless these are extremely large. Enclosures should have fairly flat tops, as tent-like tops are a serious hazard. Any cover (net, roof) over the nest should allow 1.5 m distance between the nest floor and the cover, so that males have enough room to mount the female during copulation.
- Husbandry guidelines specifically to guide potential new holders are available from C. King.

Notes

- All participating EAZA institutions are represented in the species committee.
- Veterinary and nutrition advisors are the same as those associated with the Ciconiiformes and Phoenicopteriformes TAG.
- There is an international studbook that is kept by Tama Zoo, Japan.



Black stork
ESB Annual Report 2007 - 2008



1. Programme information

Black stork

Ciconia nigra

ESB established in 1996.

Goal(s)

Percentage of gene diversity 90% saved in 100 years.

2. Programme personnel

European Studbook Keeper

Ryszard Topola (Lodz)

3. Publications

Studbook

Recent edition: 2008

Next edition: 2010

Husbandry guidelines

Not yet published.

4. Status

Status and developments over the year 2007 - 2008

Black stork
Ciconia nigra

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALMATY	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		ALPHEN	6.2.0	2.0.1 (0.0.1)	0.0.0	2.0.0	0.0.0	0.0.0	1.0.0	5.2.0
		ATHINAI	1.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		AUGSBURG	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		AVINTES	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		BERLIN-TIERPARK	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.0.0	1.1.0
		BERLIN-ZOO	1.1.0	2.1.0 (0.0.0)	0.0.0	2.0.0	0.0.0	0.1.0	0.0.0	1.1.0
		BERN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	1.1.0	1.0.0	0.0.0	1.1.0
	*	BOJNICE	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.1	0.0.0	0.1.0	2.1.1
		BURFORD	4.1.0	2.1.4 (0.0.3)	0.0.0	2.0.0	0.0.0	0.0.0	0.0.1	4.2.0
		BUSSOLENGO	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	1.0.0
		CAMBRON-CASTEAU	1.2.0	1.0.1 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1	2.2.0
		CHEMNITZ	1.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		CHESTER	1.1.0	0.0.2 (0.0.2)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
*	*	DARICA	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.1	0.0.0	0.0.0	0.0.1
		DECIN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		DUISBURG	1.1.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		DVUR-KRALOVE	1.1.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.1.0
*		EBELTOFT	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	1.0.0	0.0.0	0.0.0	1.0.0
		EDINBURGH	1.1.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.0.0
		FALCONARA	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		GOLDAU	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	1.0.0	0.0.0	0.0.0	2.1.0
		HALLE	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		HEIDELBERG	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
	*	HILVARENBEEK	0.1.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
	*	HLUBOKA-VLTAVOU	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
*		HUNNEBOSTRAND	0.0.0	0.0.0 (0.0.0)	2.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		INNSBRUCK	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		JEREZ-FRONTERA	2.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.1.0
		JIHLAVA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		KATOWICE	0.0.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
		KAUNAS	4.2.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.2.1
		KOLN	2.1.0	0.3.3 (0.1.3)	0.0.0	0.3.0	0.2.0	1.1.0	0.0.0	1.1.0
		KRAKOW	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
*		KRONBERG	0.0.0	0.0.0 (0.0.0)	2.2.0	1.1.0	0.0.0	0.0.0	0.0.0	1.1.0
		LJUBLJANA	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.2.0
		LODZ	6.5.0	0.3.1 (0.0.1)	0.1.0	1.2.0	0.0.0	1.0.0	0.1.0	4.6.0
*		MARLOW	4.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.1.0
		MOSKVA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		MULHOUSE	1.1.0	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0	1.0.0
		MUNCHEN	1.1.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
		MUNSTER	1.1.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		NOVOSIBIRSK	2.0.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.1
*		NURNBERG	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
		OLOMOUC	1.3.0	2.1.0 (0.0.0)	0.0.0	1.2.0	0.0.0	0.0.0	1.1.0	1.1.0
		OPOLE	0.1.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.2	0.0.1	0.0.0	1.1.1
		OSTRAVA	2.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	1.1.0	1.0.0
		OVERLOON	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		POZNAN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.1	0.0.0	0.0.1	1.0.0
		PRAHA	1.3.0	4.4.0 (1.0.0)	0.0.0	0.1.0	0.0.0	3.5.0	0.0.0	1.1.0



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RIGA	1.1.0	3.0.0 (0.0.0)	0.0.0	3.0.0	0.1.0	0.0.0	0.1.0	1.1.0
ROMA	0.0.2	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.2
ROTTERDAM	1.0.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0
* SIGEAN	0.0.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
* ST-PETERSBURG	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
STUTT GART	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
SZEGED	0.0.2	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.1	0.0.1	0.0.1	0.0.1
TALLINN	4.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	4.1.0
TWYCROSS	0.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
VESZPREM	0.0.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1
WALSRODE	4.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.1	0.0.0	0.0.0	4.5.1
WARSZAWA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.1.2	0.0.2	0.0.0	1.1.0
WROCLAW	1.5.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.1.0	0.0.0	1.4.0	0.1.0
ZAGREB	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
ZLIN	0.1.0	0.0.0 (0.0.0)	2.1.0	0.0.0	0.0.0	0.0.0	1.0.0	1.2.0
ZURICH	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
Total (66)	84.65.9	18.13.12 (1.1.10)	13.11.0	13.11.0	3.7.9	6.8.4	8.17.4	90.59.12
* Non-EAZA Institutions (38)	41.32.4	8.10.7 (0.1.2)	2.4.0	2.4.0	1.3.7	5.6.1	3.2.1	42.36.14

Summary

By the end of 2008 there were 253 birds in 65 EAZA zoos and 37 non-EAZA institutions.

During 2007 and 2008:

- Sixty-eight birds hatched (15 DNS - i.e. 22 %);
- Thirty birds were transferred between EAZA zoos;
- Thirty birds left EAZA, but on the otherhand thirty birds came in from non EAZA zoos. Hence, transfers have no influence on the growth of the ESB population growing at all (net number: 0!).
- Deaths - 35 specimens. Unfortunately more females died [11.19.5] - including very important breeders. Unfortunately the sex ratio at the end of 2008 was worse than 2 years before: 1.39 [1.29 on the end of 2006].
- Twenty-one breeding pairs participated in reproduction.



Abdim's stork

ESB Annual Report 2007 - 2008



1. Programme information

Abdim's stork

Ciconia abdimii

ESB established in 2002.

Goal(s)

Percentage of gene diversity 90% saved in 100 years.

2. Programme personnel

European Studbook Keeper

John Ellis (London)

3. Publications

Studbook

Recent edition: Not yet published.

Next edition: 2007

Husbandry guidelines

Not yet published.

4. Status

Status and developments over the year 2007 - 2008

Abdim's stork

Ciconia abdimii

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ANTWERPEN	2.1.0	0.0.0 (0.0.0)	2.2.0	0.0.0	0.0.0	0.0.0	0.0.0	4.3.0
	*	CAMBRON-CASTEAU	4.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.4.0
		DVUR-KRALOVE	6.3.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.5.0
		FUENGIROLA	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
*		KOLN	0.0.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	1.0.0	0.1.0
		LANDAU	2.1.0	1.3.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.4.0
		LONDON	4.5.0	2.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.7.0
		PRAHA	2.7.0	0.1.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.8.0
	*	ROMA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
	*	SCHWERIN	4.4.1	0.0.0 (0.0.0)	0.0.0	2.2.0	0.0.0	0.0.0	0.0.0	2.2.1
		VILLARS-DOBES	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		WALSRODE	5.3.0	2.1.0 (0.0.0)	0.0.0	1.1.0	0.0.0	1.1.0	0.0.0	5.2.0
		Total (12)	33.28.1	5.9.0 (0.0.0)	4.3.0	3.3.0	0.0.0	1.1.0	2.0.0	36.36.1

Summary

Not specified.



Saddle-billed stork

ESB Annual Report 2007 - 2008



Summary

This species has proved to be difficult to maintain and virtually impossible to breed in European collections and therefore the captive population should not be bolstered by wild caught stock.



Marabou stork
ESB Annual Report 2007 - 2008



1. Programme information

Marabou stork

Leptoptilos crumeniferus

ESB established in 2002.

Goal(s)

Percentage of gene diversity 90% saved in 100 years.

2. Programme personnel

European Studbook Keeper

Catherine King (Fuengirola)

3. Publications

Studbook

Recent edition: 2006

Next edition: 2010

Husbandry guidelines

Published in 2002.

4. Status

Status and developments over the year 2007 - 2008

Marabou stork
Leptoptilos crumeniferus

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		ALMATY	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		ALPHEN	3.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.3.0
		ALWABRA	6.3.1	0.0.10 (0.0.5)	0.0.0	0.0.0	0.0.0	0.0.0	2.0.1	4.3.5
*		AMNEVILLE	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	4.0.0	0.0.0	0.0.0	4.0.0
		ATHINAI	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
		AVINTES	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.0.0	2.1.0
		BARCELONA-ZOO	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0	0.0.0
		BERLIN-TIERPARK	3.1.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	2.1.0
		BERLIN-ZOO	1.0.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
		BOURTON-WATER	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		BRATISLAVA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		BUDAPEST	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		BUSSOLENGO	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		CAMBRON-CASTEAU	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	1.1.0	0.0.0	0.0.0	3.1.0
		DARMSTADT	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		DRESDEN	0.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0
		DUBAI-WC	2.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.4.0
		DUBLIN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	0.0.0
		DUISBURG	6.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.4.0
		DVUR-KRALOVE	4.1.0	2.2.4 (0.0.1)	0.2.0	0.0.2	0.0.0	3.2.0	0.1.0	3.2.1
		EBELTOFT	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
		EBERSWALDE	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		EDINBURGH	2.0.0	0.0.0 (0.0.0)	0.2.0	1.1.0	0.0.0	0.0.0	0.1.0	1.0.0
		EMMEN	3.2.0	5.7.3 (0.0.3)	0.0.0	3.6.0	0.0.0	0.0.0	2.0.0	3.3.0
		EPE	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	2.1.0
		ESKILSTUNA	5.1.0	0.0.0 (0.0.0)	0.0.0	5.1.0	0.0.0	0.0.0	0.0.0	0.0.0
		FUENGIROLA	1.4.0	0.0.0 (0.0.0)	0.0.0	1.4.0	0.0.0	0.0.0	0.0.0	0.0.0
		GELSENKIRCHEN	1.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.1.0
		GIVSKUD	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		HALLE	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		HAMBURG	3.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.1.0	3.2.0
		HAMERTON	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		HANNOVER	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		HEIDELBERG	1.1.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.1.0	0.0.0
		HILVARENBEEK	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
		JERUSALEM	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		KARLSRUHE	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		KOLMARDEN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		KOLN	3.3.0	0.3.2 (0.0.0)	0.0.0	0.3.0	0.0.0	0.0.2	0.0.0	3.3.0
*		KRAKOW	0.0.0	0.0.0 (0.0.0)	5.1.0	0.0.0	0.0.0	0.0.0	0.1.0	5.0.0
		KRONBERG	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
		LEEUWARDEN	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		LEIPZIG	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		LES-MATHES	0.1.0	0.0.0 (0.0.0)	2.0.0	0.1.0	0.0.0	0.0.0	0.0.0	2.0.0
		LINTON	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
		LISBOA-ZOO	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		LODZ	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		MADRID-ZOO	2.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.3.0
		MAGDEBURG	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	1.0.0	0.0.0	0.1.0	2.0.0
		MARLOW	2.1.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.1

MARWELL	1.0.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
MECHELEN	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
MONTPELLIER	3.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.0.0
MUNCHEN	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
MUZILLAC	1.1.0	0.0.0 (0.0.0)	1.0.0	0.0.0	0.1.0	0.0.0	0.0.0	2.2.0
NEUWIED	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
NORDHORN	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
OBTERRE	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
ODENSE	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0
OLOMOUC	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.1.0
OSTRAVA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.0.0	1.1.0
PAIGNTON	2.0.0	0.0.0 (0.0.0)	1.1.0	0.0.0	0.1.0	0.0.0	1.0.0	2.2.0
PARIS-ZOO	0.1.0	0.0.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0
PLAISANCE-TOUCH	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
PLEUGUENEUC	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
* PLZEN	0.0.0	0.0.0 (0.0.0)	0.1.0	0.0.0	1.1.0	0.0.0	0.0.0	1.2.0
POZNAN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
PRAHA	1.1.0	0.1.0 (0.0.0)	0.0.0	0.1.0	0.0.0	0.0.0	0.0.0	1.1.0
RAMAT-GAN	1.0.2	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.2
ROMA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
ROTTERDAM	3.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	2.3.0
SCHWERIN	1.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.3.0
ST-AIGNAN	4.0.0	0.0.0 (0.0.0)	0.2.0	1.0.0	0.0.0	0.0.0	0.1.0	3.1.0
STUTT GART	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
TALLINN	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
USTI-NAD-LABEM	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	1.0.0
* VALENCIA-PARC	0.0.0	0.0.0 (0.0.0)	1.4.2	0.1.0	2.2.0	0.0.0	0.2.0	3.3.2
VILLARS-DOBES	2.1.0	0.0.0 (0.0.0)	0.0.0	1.0.0	0.0.0	0.0.0	0.0.0	1.1.0
WALSRODE	1.0.0	0.0.0 (0.0.0)	1.2.0	0.0.0	0.0.0	1.0.0	0.1.0	1.1.0
WARSZAWA	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
WIEN-ZOO	1.1.0	1.0.1 (0.0.1)	0.1.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
WINKHILL	2.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.1.0	0.0.0	0.0.0	2.2.0
* WROCLAW	0.0.0	0.0.0 (0.0.0)	2.2.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
ZAGREB	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
ZLIN	6.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.1.0	4.2.0
ZURICH	2.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.0.0
Total (86)	144.98.4	8.13.20 (0.0.10)	15.19.2	14.19.2	9.10.0	5.2.2	12.19.1	145.100.11
Non-EAZA Institutions (17)	19.15.10	10.12.1 (0.0.1)	1.0.0	5.8.0	0.0.0	5.7.0	3.1.6	17.11.4

Discrepancy notes

Marabou stork

Leptoptilos crumeniferus

BERLIN-ZOO	Data are only for 2007.
LINTON	Data are only for 2007.
OBTERRE	Data are only for 2007.

Summary

Summary

- 96 zoos were included in the ESB in 2007, eight of which were new to the ESB.
- Two zoos stopped holding marabous in 2007.
- 100 zoos were included in the ESB in 2008, including five zoos new to the ESB, and one that came back into the ESB (Blackbrook).
- Five zoos stopped holding marabous in 2008.
- Zoos worked together in France to send females to a zoo with many males (Beauval); La Palmyre gave up its female to hold two males, one from Heidelberg and one from Beauval.
- Heidelberg and Paris decided to no longer hold marabous because they did not have the proper facilities. This is a very welcome development in the ESB, and it is hoped that more zoos that have no possibilities to breed marabous will stop holding them or hold only males.
- EAZA member zoos breeding marabous have been extremely cooperative in placing marabous in zoos having a high priority in the ESB.
- Students have been undertaking a series of research projects at Koeln Zoo under the supervision of Dr. Lydia Kolter. These projects can serve as a basis for furthering our understanding of marabou behaviour and further research efforts.

Births exceeded deaths for the first time in 2007 since the ESB began (in 2002), and births exceeded deaths in 2008 as well.



Marabou stork

ESB Annual Report 2007 - 2008



- 2007: 9.13.3 (25, 2 DNS) young hatched in 5 zoos
- 2008: 9.12.18 (39, 9 DNS) young hatched in 6 zoos, an important breeding female died at Dvur Kralove; she was the only F1 female (hatched at Dvur Kralove) breeding, and bred with the only F1 male (hatched at Prague) breeding.

The primary cause of death is trauma, most importantly killing of females by other marabous. The population is skewed towards males.

	2007 (n=19)	2008 (n= 26)
killed by other marabou(s)	1.3.1 (5 in 5 zoos)	0.5.3 (8 in 6 zoos)
killed by predator/escaped wolves/ jumped in lion enclosure	2.3.0 (5 in 4 zoos)	1.0.0 (1 zoo)
killed by hoofstock	2.1.1 (4 in 4 zoos)	0.3.0 (3 in 3 zoos)
trauma- accident	1.0.1 (2 in 2 zoos)	
unspecified/unknown trauma	0.1.0 (1 zoo)	0.2.0 (2 in 2 zoos)
chronic leg problems other disease	1.0.0 (1 zoo)	3.4.0 (7 in 7 zoos)
cold	-	1.0.0 (1 in 1 zoo)
no cause given/unspecified euthanasia	-	1.0.2 (3 in 4 zoos)
disappeared	-	0.0.1
DNS, and < 3 months of age	0.0.2 (1 zoo, pinioning)	2.0.9 (11 in 5 zoos)
Total	7.8.5	8.14.15

- Intraspecific killings: minimally 13 (34.2%) of 39 deaths non-DNS, >3 mo. age with known cause.
- Hoofstock: minimally 7 (18.4%) of 39 deaths non-DNS, >3 mo. age with known cause.
- All trauma, including killings: 31 (79.5%) of 39 deaths non-DNS, >3 mo. age with known cause.
- The number of DNS in 2008 was unusually high, as was death by disease.

Longevity records are being set:

- Female at Dresden: arrived 14 August 1959.
- Male at Tabernas: arrived in Barcelona on 10 May 1960 and was sent to Tabernas in 2008. Despite his old age and aggressive history he was successfully integrated in a group of 0.0.2 in Tabernas.



Marabou stork

ESB Annual Report 2007 - 2008



Notes

Programme difficulties

- Not enough marabous to meet the demand, the shortage is particularly acute with females.
- The ESB population is skewed towards males.
- Marabous are often kept with large hoofstock.
- Few enclosures have the recommended group size for breeding (3.3.0 or more).
- Aggression is often not identified in time to avoid death of females.
- Enclosures (both indoor and outdoor) often do not provide room to separate individuals visually/spatially.
- Individuals are going out of ESB participating facilities.
- Marabous still dying of cold or having frostbite, MARABOUS CAN GET FROSTBITE AT SLIGHTLY ABOVE FREEZING TEMPERATURES.

Programme recommendations

- Unsexed marabous should be sexed.
- Marabous should only be held in single species exhibits or with other birds that are not aggressive, or with hoofstock that are muntjac size or smaller.
- Marabous must have winter shelter when the temperature is still slightly above freezing.
- Marabous should preferably be held in groups of 3.3.0 for breeding.
- Zoos that do not have the facilities to breed marabous should send females to zoos with a breeding situation and hold an all-male group (e.g. 2.0.0).
- Zoos that cannot hold marabous in suitable enclosures should stop with them, and send their birds to another zoo with appropriate facilities.
- Marabous should only be sent to zoos that will participate in the ESB, please contact the ESB keeper regarding which zoos to send marabous to, as many zoos are waiting for birds.
- Marabou managers need to be aware of the behaviour of the individuals and be able to move birds around to try to reduce mortality by killing (mainly of females).
- Relevant information should be recorded in the case of aggression.
- Marabou enclosures should have suitable perching at different elevations, and diversity in landscaping.
- Marabous are best held in aviaries where there is vertical spacing and the birds can remain full winged, this also increases their attractiveness.
- Marabou managers should consider training of marabous (e.g. station training) to facilitate movement of individuals to other enclosures/areas when aggression is a (potential) problem.

The 14 non-EAZA ESB participants in 2007/2008 are (31 December 2008):

Cottbus (DE) - 2.2.0 (bred 10.12.1, 0.0.1 dns in 2007/2008)
Farnham (UK) - 1.1.0
Gyor/Kiskultig (HU) - 1.1.0
Lagos (PT, No Response) - 1.1.0
Lotherton (UK) - 1.1.0
Olmen (BE) - 1.0.0
Paultons (UK) - 0.0.0
Pensthorpe (UK) - 1.1.0
Plantaria/Kevelaar (DE) - 1.1.0
Pyrmont (DE) - 1.0.0
Tabernas (ES) - 1.0.2
Valbrembo (IT) - 0.0.3
Wels (AU) - 3.1.0



Waldrapp ibis

EEP Annual Report 2007 - 2008



1. Programme information

Waldrapp ibis

Geronticus eremita

EEP established in 1988.

Goal(s)

Percentage of gene diversity 90% saved in 100 years.

2. Programme personnel

Species Committee members

Steven Vansteenkiste (Antwerpen)

Friederike von Houwald (Basel)

Andrew Owen (Chester)

Anthony Tropeano (Colchester)

Pierre Gay (Doue-fontaine)

Miguel Quevedo (Jerez-frontera)

David Jeggo (Jersey)

Pierre Moisson (Mulhouse)

Ulrich Schürer (Org-vdz)

Karl Pithart (Praha)

Achim Johann (Rheine)

Robert Zingg (Zurich)

Veterinary advisor

Miguel Quevedo (Jerez-frontera)



Waldrapp ibis

EEP Annual Report 2007 - 2008



3. Activities

Species Committee

Last election: 2008
Last meeting: 18 September 2007 Antwerpen

Conservation activities

An international Species Action Plan (SAP) for the NBI (Northern Bald Ibis) was elaborated in January 2004 with some updates proposed at the 2nd International Advisory Group for the Northern Bald Ibis (IAGNBI) meeting in 2006 which were approved in 2008. There is a need to revise this in an updated AEWA format incorporating outputs from recent meetings.

Souss Massa NP and Tamri

Monitoring and research programs which started in 1993 and are led by the Souss Massa National Park, the Royal Society for the Protection of Birds (RSPB), and the Sociedad Espanola de Ornithologia (SEO/BirdLife) provided important results including monitoring of the population, productivity and understanding of the ecology of the species. These activities and the establishment of additional water supplies have led to higher breeding success. Since 2003 nearly 100 nestlings fledged each year(!). So the Western population is increasing and is now estimated to count about 450 birds (2009). There is hope that some Ibises might disperse to other sites in Morocco especially as there has been a sighting of 14 unringed NBI in the Middle Atlas in 2004. Old nesting sites have been visited however no birds or sign of breeding activities could be detected there. The national Morocco National Action Plan (PANIC) is soon finalized.

Palmyra; Syria

During the breeding seasons of 2002-09 a total of 24 chicks have fledged and left the breeding area while breeding failures were recorded in 2005, 2008 and 2009. Between 2004 and 2007 only 5 immature ibises have made a return to the colony, separately and later than adults. As a consequence, 2 recruitment events have taken place (2006 and 2007), partly compensating for the gradual decrease in the number of adults. The adult birds arrive separately in their breeding grounds during the second half of February but they leave all together around mid July. They feed on overgrazed pastures at an altitude ranging from 400 to 900m asl and feed mostly on Tenebrionidae beetles and other invertebrates found on the surface, poke on larvae underground and take juvenile toads found at artificial reservoirs.

Breeding Centre Birecik, Turkey

Presently the Northern Bald Ibis population in Birecik survives only as a semi-wild population. The birds are kept in aviaries during winter and are released in spring and breed at the cliffs nearby. In autumn the birds are recaptured. In 2009 the population size increased up to 100 birds.

Research activities

Eastern population:

Turkey: In summer 2007 3 juveniles were left outside during winter and 2 left the area to reappear at Birecik in spring 2008. Five birds were selected for further release including the 2 returning birds of 2007. Two of these were fitted with satellite tags. The birds left the area early September and from satellite locations at least one went to the recent Palmyra colony site in Syria. They passed east of Damascus and crossed into the Jordan desert. When looking for the birds 3 were found dead in south of Amman. The autopsies indicated that they died by electrocution.

Regarding the juveniles of Birecik which returned from their wintering grounds in spring 2008 these losses might enlighten the problems these birds are facing. These recent events – sad as they are – showed us that after 20 years of semi-captivity, off-spring of the Turkish NBI still can migrate successfully, that they have the ability to find the Palmyra colony, and are capable of surviving a winter outside the aviaries and are returning to Birecik.

Syria:

A preliminary survey conducted in the Ethiopian wintering grounds in November 2006 (Serra et al. 2007) and 2 further expedition in 2008/2009 found only the adult birds in place: evidencing that 1st year young and sub-adults winter separately from adults in a still unknown site. These wintering grounds are well known from records of the 19th and the early 90s of the 20th century.

It further shown that NBIs entirely rely on pastureland and that no immediate threat is present at the wintering site and the birds use a significantly smaller area (ca. 15 km²) than those when breeding in the Syrian desert (ca. 400-600 km²).

One of the four adults (the untagged one) was lost during the return migration in 2008 and 2009, evidencing that there are threats in place along the migration route.

Konrad Lorenz Forschungsstelle, Austria:

The free-flying colony which was established in 2007 and started to breed in 2000 has increased to up to 40 birds. Research is still ongoing with regards to social learning, foraging, social development and socialization, cooperation of partners over raising off-spring and the function of sexual ornaments and their tradeoffs with immunity (patches of red skin).

Waldrappteam.at, Austria:

Guided by flying motor trikes, flown by people on whom the hand-reared birds had imprinted, the juveniles “migrated” to Italy. The first trip started in 2004. Since then each year about 8-10 juveniles have been led to the wintering area. These young birds, most of them carrying a radio transmitter, stay there over winter in the protected area of Grosseto and are observed throughout the whole winter. In spring the supplementary feeding at this site is stopped, and the birds are left to feed themselves.

In May 2005 for the first time birds migrated north, however they did not reach the area in Austria where they had been reared. In spring 2006 again 5 birds left Grosseto and 2 found their way up north to Carinthia, in 2007 3 birds flew north to Austria (Styria). In March 2008 6 of the adult birds (born in 2004) headed northwards and flew up to Friaul, North Italy. There they were captured and taken into an aviary where one pair started to breed. Two chicks hatched and after fledging all the birds were released. In September they left Friaul heading south and arrived after two days in their wintering area in Grosseto. This has shown that the NBI can learn a migration route.

Additionally the Waldrappteam.at started a research project in 2008 on migration physiology in cooperation with the University of Vienna. This project offers a unique chance to closely monitor migrating birds and to take samples (blood/faeces adrenalin, metabolism, fat, body mass) from birds to undertake both fatiguing and non-strenuous flights, to document extremes in the analyses of physiological parameters and flight duration.

Proyecto Eremita PE, Spain:

PE is now in its 6th year. It evaluates the efficiency of different releasing techniques in La Janda area, Cádiz, Southern Spain. The basic method chosen is hand-rearing using “characterized foster parents”, i.e. human foster parents who wear black T-shirts and hats topped with a model ibis head to minimize the risk of imprinting on human beings. As a further technique a smaller group of young parent-reared birds were incorporated into the group of the hand-reared birds. This happened when the birds were kept in the aviary during the dispersal period. Then the birds were released to fly freely in the release area of El Retin. So far the hand reared birds have survived best. In 2008 and 2009 one pair bred successfully in a cliff close to the study area.

4. Publications

Studbook

Recent edition: 2006

Next edition: 2011

Husbandry guidelines

Published in 2006.

5. Status

Status and developments over the year 2007 - 2008

Waldrapp ibis
Geronticus eremita

New	No reply	Participants	Status 1 Jan.	Births (DNS)	EAZA zoos		non-EAZA zoos		Deaths	31. Dec.
					In	Out	In	Out		
		AACHEN	1.2.7	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.2	0.2.5
*		AGRATE	0.1.6	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.6
		AMERSFOORT	11.5.0	2.1.1 (0.0.1)	0.2.0	0.0.0	0.0.0	0.0.0	0.2.0	13.6.0
		AMSTERDAM	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		ANTWERPEN	9.12.0	2.1.0 (0.0.0)	0.0.0	0.2.0	0.0.0	0.0.0	0.0.0	11.11.0
*		APELDOORN	0.0.0	0.0.0 (0.0.0)	4.4.6	0.0.0	0.0.0	0.0.0	0.0.0	4.4.6
		ATHINAI	4.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.1.0
		BALLAUGH	4.6.6	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.6.6
		BASEL	3.2.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.1
*		BENALMADENA	0.0.10	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.10
		BERLIN-TIERPARK	8.7.2	1.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	1.0.0	1.1.0	7.6.2
		BERN	9.3.0	1.2.1 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	5.0.1	5.5.0
		BESANCON	6.4.0	2.2.1 (0.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	8.6.0
		BLACKPOOL	3.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.3.0
		BOURTON-WATER	1.7.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.7.0
		BUDAPEST	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		BURFORD	4.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	3.2.0
		BUSSOLENGO	4.5.8	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.5.8
		CAMBRON-CASTEAU	2.5.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.5.1
		CHESTER	7.7.4	2.0.11 (0.0.3)	0.0.0	0.0.8	0.0.0	0.0.0	0.1.1	9.6.3
*		CHOMUTOV	4.4.5	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.4.5
*		CLERES	0.0.0	0.0.0 (0.0.0)	5.4.0	0.0.0	0.0.0	0.0.0	1.1.0	4.3.0
		COLCHESTER	6.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		DOUE-FONTAINE	3.2.25	0.0.25 (0.0.11)	0.0.0	1.1.0	0.0.0	0.0.0	0.0.0	2.1.39
*		DUBAI-WC	2.2.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0
		DUBLIN	6.7.1	0.0.1 (0.0.1)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.7.1
		DUDLEY	4.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	4.3.0
		DUISBURG	16.17.0	0.0.4 (0.0.0)	0.0.0	7.7.0	0.0.0	0.0.0	2.2.1	7.8.3
		EDINBURGH	6.10.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.10.0
		ERFURT	8.9.3	4.3.0 (0.0.0)	0.0.0	8.5.0	0.0.0	0.0.0	1.0.0	3.7.3
		GOLDAU	6.9.0	1.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	2.2.0	5.9.0
		HALLE	7.5.0	3.2.3 (0.0.3)	0.0.0	3.2.0	0.0.0	0.0.0	0.0.0	7.5.0
		HANNOVER	5.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	5.5.0	0.0.0
		HAREWOOD	7.9.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	7.9.0
		HAYLE	3.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.3.0
		HEIDELBERG	10.14.0	3.12.0 (0.0.0)	0.0.0	7.9.0	0.0.0	0.0.0	0.1.0	6.16.0
*		HUNNEBOSTRAND	0.0.0	0.0.0 (0.0.0)	5.8.0	0.0.0	0.0.0	0.0.0	0.0.0	5.8.0
		INNSBRUCK	10.10.8	0.0.0 (0.0.0)	0.0.0	0.0.6	0.0.0	0.0.0	0.1.0	10.9.2
		JEREZ-FRONTERA	15.14.0	8.12.1 (0.0.0)	0.0.8	0.0.0	0.0.0	7.9.8	3.5.1	13.12.0
		JERSEY	3.3.7	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.3.7
		JURQUES	1.1.2	0.0.1 (0.0.0)	4.6.0	0.0.0	0.0.0	0.0.0	0.0.0	5.7.3
		KYOTO_NE	1.1.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0
		LEIPZIG	8.7.0	0.2.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	1.1.0	7.8.0
		LIGNANO	5.5.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	5.5.0
		LISBOA-ZOO	0.0.4	0.0.0 (0.0.0)	3.2.0	0.0.0	0.0.0	0.0.0	0.0.0	3.2.4
		MARLOW	24.24.2	0.0.0 (0.0.0)	4.2.0	0.0.0	0.0.0	0.0.0	0.0.0	28.26.2
		MONCHIQUE	0.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0
		MOSKVA	1.0.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0
		MULHOUSE	6.3.0	0.0.2 (0.0.2)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.3.0
		MUNCHEN	3.1.10	0.0.0 (0.0.0)	4.4.0	0.0.0	0.0.0	0.0.0	0.0.0	7.5.10



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NURNBERG	8.5.1	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0
OPOLE	8.4.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	7.4.0
PRAHA	6.7.0	0.0.4 (0.0.0)	0.0.0	0.0.2	0.0.0	0.0.0	0.0.0	0.0.2	6.7.0
RHEINE	5.8.2	0.0.1 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.0	5.7.3
ROSEGG_NE	5.15.7	1.3.4 (0.0.0)	1.0.1	0.0.2	0.0.0	1.1.0	0.0.0	0.0.0	6.17.10
STUTTGART	4.3.14	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.1	4.3.13
TOKYO-PARK_NE	6.6.7	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.6.7
TWYCROSS	2.3.0	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	1.0.0	1.3.0
UNKLOC-AT1_NE	9.3.8	0.0.0 (0.0.0)	4.2.4	5.0.1	0.0.0	0.0.0	0.0.0	0.0.0	8.5.11
* UNKLOC-AT2_NE	18.8.12	0.0.0 (0.0.0)	4.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	22.8.12
VILLARS-DOBES	2.1.0	0.0.0 (0.0.0)	3.3.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	5.4.0
* WALSRODE	3.3.15	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	3.3.15
WIEN-ZOO	16.14.7	6.8.1 (0.0.0)	0.0.0	4.2.0	0.0.0	0.0.0	0.0.0	1.0.0	17.20.8
WUPPERTAL	0.1.21	0.0.0 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.1.21
ZLIN	6.4.3	0.0.1 (0.0.0)	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	0.0.0	6.4.4
ZURICH	13.133.0	5.5.0 (0.0.0)	0.0.0	6.9.0	0.0.0	0.0.0	0.0.0	2.1.0	10.128.0
Total (66)	359.465.209	41.55.62 (0.0.22)	41.37.19	41.37.19	0.0.0	9.10.8	29.25.9	348.476.231	

Discrepancy notes

Waldrapp ibis

Geronticus eremita

ANTWERPEN	The status on 1 January 2007 is 9.12.0 instead of 9.8.5 as listed on 31 December 2006. Unknowns were sexed and one bird died already in 2006.
BERN	The status on 1 January 2007 is 9.3.0 instead of 5.2.3 as listed on 31 December 2006. Unknowns were sexed and mistakes in death notes.
CAMBRON-CASTEAU	The status on 1 January 2007 is 2.5.1 instead of 1.0.9 as listed on 31 December 2006. Data for 2005/2006 are still missing.
CHESTER	The status on 1 January 2007 is 7.7.4 instead of 6.7.5 as listed on 31 December 2006.
ERFURT	The status on 1 January 2007 is 8.9.3 instead of 4.6.3 as listed on 31 December 2006. Data for 2006 are missing.
HALLE	The status on 1 January 2007 is 7.5.0 instead of 6.5.1 as listed on 31 December 2006.
INNSBRUCK	The status on 1 January 2007 is 10.10.8 instead of 8.6.14 as listed on 31 December 2006.
JURQUES	The status on 1 January 2007 is 1.1.2 instead of 0.0.4 as listed on 31 December 2006.
LEIPZIG	The status on 1 January 2007 is 3.3.8 instead of 8.7.0 as listed on 31 December 2006.
UNKLOC-AT2_NE	The status on 1 January 2007 is 18.8.12 instead of 18.9.13 as listed on 31 December 2006.
WIEN-ZOO	The status on 1 January 2007 is 16.14.7 instead of 9.6.22 as listed on 31 December 2006. Data for 2006 are missing.
AACHEN	The status on 1 January 2007 is 1.2.7 instead of 1.3.6 as listed on 31 December 2006.

Summary

The NBI (Northern Bald Ibis) EEP is in its 20th year and the number of members is still increasing with an additional 66 in 2008. The average colony size is about 10-15 birds. Although the number of surplus each year is about 100 birds (juveniles) only 1/3 of all colonies are regular breeders. This indicates that husbandry is still a problem and has to be taken care of. The husbandry guidelines are published and revised and are downloadable on the Alpenzoo homepage.

There is still a keen interest in the NBI evidencing that each year new members join the EEP and new colonies are founded.

There is a close contact to the International Group of the Northern Bald Ibis (IAGNBI) and the EEP supports the conservation activities in the field.