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ANUAL REPORT 2009



Mutters, 28. February 2010

Dear friends of the Project Waldrappteam.at

A few days ago we held the annual Waldrappteam Meeting in Mutters/Tyrol. Beside the actual members of the team we could welcome seven new candidates for the project year 2010. All members are still very motivated and their commitment to the work is unbroken. The public and media interest as well as the motivation of the supporters and sponsors is still very high. All this is really gratifying for me as project leader and even increases my motivation for the following year.

Although the previous year was a controversial one - birds with infection and bad weather nearly forced the migration to fail. Also the suspected Ornithose of Johannes Dietl after a pneumonia really worried us and the team of the Zoo Salzburg. Through to the enormous commitment of the team members, specially Markus Unsöld and Arvid Zickuhr as foster parents, the migration 2010 finally was successful.

But in autumn there were again some hard setbacks with the free living birds in Italy. So far 15 birds have disappeared since october. But there has been a ray of hope, when the long time missing bird Gonzo was found in february in Friaul. So there is still hope to find the missing birds again.

The situation in the Middle East doesn't give us much hope for the last free living wild Northern Bald Ibis in Syria. The population went down to three or four birds. Together with Gianluca Serra, Lubomir Pesce and the syrian colleagues, we had an intensiv preperation for the supplementation project in the summer of 2009. A final act of desperation to change the critical situation. But by the looks we will never find out if a supplementation would have changed anything because the project wasn't carried out in 2009 and also in 2010 we won't be able to do any changes. All this just because the transfer of six breeding birds from Birecik in Turkey to Palmyra in Syria - about 300km beeline - wasn't possible due to human inability and bureaucratic hurdles. Even a large international meeting in Palmyra in November 2009 couldn't change anything.

At least we are still hoping that our colony in Europe will proceed further. The commitment of all members is a good precondition for a successful process of this project.

I would like to thank the whole Team 2009 a lot. The demands of the project never were higher as in 2009, but everyone kept up and this led to the final success. Thank you very much!!!!

I also would like to thank all friends of the project, all supporters and sponsors for their enthusiasm, commitment and their faith.

Johannes Fritz
Project leader Waldrappteam.at

HANDRAISING AND TRAINING 2009



In 2009 we started the fifth migration with the Northern Bald Ibis. The first ten nestlings from the "Tierpark Rossegg" arrived on the 29th April and on the 6th May we received three more chicks from the same park as well as two more birds from the "Cumberland-Wildpark Grünau". Overall we had 15 young Northern Bald Ibis for the migration 2009.

The two foster parents Makus Unsöld and Arvid Zickuhr, started with the handraising of the birds at the „Zoo Salzburg“. In the early morning of May 25 they had to discover that one bird died overnight in the nest and three days later, another bird was found dead. Just after we moved the birds to Burghausen for the flight training, a third bird died. When two more birds showed first signs of opacity of the eye lens, a specialist from the University Hospital Munich diagnosed an affection of flagellates. We think that this was also the cause for the death of the other birds. Through to this new information we could now prevent further infections for the birds and so, one of the already ill birds couldn't recover again but had to be given to the „Tierpark Hellabrunn“ in Munich because he wouldn't have been able to do the whole migration. Through all that, the number of our birds was reduced from 15 to only 11 healthy birds.

Mid of June the remaining birds were ready for the flight training. But because of the heavy rainfalls during this time we couldn't start with the proper training flights. Finally on the 21st July the first training flight was accomplished. But pretty soon this delay showed it's effects. By now the birds had developed a "pubescent independency" and were hard to control during the training flights. So we had to stop the training on the 10th August without any progress. At this time no one really expected to see the birds successfully arriving in Tuscany this year.

MIGRATION 2009



We started the migration on Friday the 14th August 2009. The not well trained birds followed the planes a while to the east, but then decided to fly back to the camp in Burghausen. So by the looks there was no chance for a regular start of the migration.

We decided to transfer the birds to a meadow 10km east of the camp so they were away from the known area and wouldn't find back as easily and would follow the foster parent in the plane. And we were lucky! On August 16th the birds followed the planes 6km to the next camp.

The following 41 days and 21 days of flying were the longest migration so far (Fig.4). The birds stayed unreliable and on some days just returned to the previous camp. On two days we had to transfer them in cars before they would fly any further. But south of the Apennin they changed their behavior completely and became reliable and followed the planes for long distances.

On September 21st we arrived at the WWF nature reserve Laguna di Orbetello with all 11 birds. In the centre of the reserve we set up the mobile aviary and kept the birds inside for a few weeks until their motivation of migrating calmed down. On October 22nd we opened the aviary again and the birds started to integrate in the free flying groups of Northern Bald Ibis which already are living in the reserve.



INDIPENDENT MIGRATION FLIGHTS



In spring 2009 the mature birds from the 04/05 generation directly went from Tuscany to Fagagna for the first time. It seems that they have accepted Fagagna as their breeding area. During summer they raised three chicks and at the beginning of September two sub-adult birds from the group in Tuscany joined them. One of them was raised in Fagagna the year before. On September 28th both sub-adult birds and with them three of the young birds left Fagagna. Three days later, one of the sub-adult birds returned to Fagagna with two of the young birds. On the 12th October the same adult bird, that took two young birds with him to Tuscany last year, left Fagagna with the other sub-adult bird and one of the two remaining young birds.

The rest of the birds (four adults and one young bird) relocated their nest on top of the aviary of the stationary birds in Fagagna and stayed there, just like they did last year. On October 22nd we transferred these birds to the southern border of the Po valley. From here the four adults knew the way to the wintering area well and we hoped that they would migrate the last stretch south quickly. Five days after we released them, all adults were seen south of Ravenna. Since then we have lost sight of them. Also from the birds who left Fagagna independently only one sub-adult bird arrived in the wintering area.



DEMOGRAPHY AND MORTALITY



During five human led migrations since 2004 we showed 52 young Northern Bald Ibis the way of migration to Tuscany. In 2007 the first birds became mature and since then raised chicks every year. All together they had eight chicks in the last three years.

During the last six years we lost 28 birds but this could be compensated due to handraising and raising of the adult birds, so that the number of Northern Bald Ibis steadily is increasing. The rate of mortality in the first three years was at 35% which means that 65% of the birds became mature. After they reach sexual maturity, the rate of mortality decreases to 11% on average (until September 2009).

Of the 28 birds we have lost, the cause of death of nine birds is known. The remaining 19 are missing. One Northern Bald Ibis was killed by a bird of prey and two died through electrocution by a high voltage line in the nature reserve. One bird died due to a broken beak and five birds were killed by illegal hunting activities in Italy. So 56% of the deaths were caused by illegal hunting!

All together the rate of mortality stays in a relatively acceptable range. It seems that the handraised birds cope well with the natural risks. Unfortunately since the beginning of October 2009 we have been missing 15 more birds and do not know the reason of their disappearance. From our experience we hope that at least a few of the birds will appear again soon.

The highest risk for our birds is illegal hunting in Italy. In 2010 we will start a campaign with the aim to inform about this illegal activities and to prevent the birds from being shot.

PUBLIC RELATION ACTIVITIES



The first part of the handraising in 2009 took place at the Zoo Salzburg. From the 29th April until 28th May the handraising could be watched by the visitors of the zoo and there was very good feedback for this presentation of the birds.

In Burghausen we offered guided tours for school classes and kindergarden groups. During the time from the 25th June to the 30th July 15 groups with about 320 participants used this offer. The program was offered and guided by Michael Schroll and other members of the Waldrappteam.

Also during the Sommer of 2009 we had an information desk at the „Days of species conservation“ at the Zoo Schönbrunn in Vienna and at the Zoo Salzburg. We also took part at the „Nature Festival“ in Linz as well as at the "Flightshow" in Wels.

IBISWORLD EXHIBITION



In co-operation with the Media-Art-Group PXNG.LI, the city of Burghausen, the „Bund Naturschutz in Bayern e.V.“ and the "Heinz Sielmann Stiftung" we held the Ibisworld exhibition in Burghausen (20th June to 16th Aug.) and at the Zoo Salzburg (22nd Aug. to 27th Sept.). The aim of the exhibition was to show the visitors the aspects of nature conservation in agricultural used areas, in a playfull way.

The digital-interactive presentation was located in five light-proof tents: 1. Entrance and Information-Tent; 2. Video presentation; 3. „Touch Globe“ with Northern Bald Ibis relevant spots; 4. Flight simulation with Northern Bald Ibis (the flight simulation was financed by the Heinz Sielmann Stiftung); 5. Interactiv game ‚Catch the worm‘.

The frequency of the visitors varied to the locations. In the city centre of Burghausen there was an average of 92 visitors per week. At the Zoo Salzburg, where we were located at the entrance of the zoo, an average of 387 visitors could be reached. The installment and supervision of the exhibition was done by Michael Schroll, Patrizia Watzinger, Aynur Avant, Monika Felix and other members of the Waldrappteam as well as members of the „Bund Naturschutz in Bayern e.V.“.

SCIENTIFIC STUDIES



FWF Research Project migration physiology

For the second time we studied the physiological and energetic effect of the migration on the birds during the migration 2009 with in the FWF project P20633. This project is part of a cooperation with Prof. John Dittami (Univ. Vienna), Prof. Franz Bairlein (Institut for bird science, Wilhemshaven) and Prof. Alexandra Scope (Vet.med. Univ. Vienna). Gabriela Stanclova and Johannes Dietl worked as scientific assistants at the migration 2009.

Conservation Genetics

Dipl.-Biol. Markus Unsöld was exempted from his employer (Staatl. Naturwiss. Sammlungen Bayerns, Zoolog. Staatssammlung München) for the duration of the migration 2009 to collect data for his PhD during the handraising period and migration. The knowledge about the genetics is an important factor for further international conservation acitivies and activities

for the protection and relocation of the Northern Bald Ibis.

Migration habits

The collection of the flight habits with GPS-datalogger was done again in 2009. So we were able to monitor the whole spring migration of two adult birds.

Feeding ecology

The intensive data collection about the feeding ecology of the Northern Bald Ibis in Europe has been finished (so far). The final results will be presented in two publications.

INTERNATIONAL ENGAGEMENT



In 2009 the Waldrappteam was highly involved in the international coordinated conservation project of Northern Bald Ibis in Syria. Together with Gianluca Serra, Lubomir Pesce, national and international NGO's, a strategy for the supplementation was elaborated, adapted and set up. Through to the financial help of the "Tiergarten Schönbrunn" and the "Schweizer Zoovereinigung" we were able to buy a new mobile aviary for the project. Unfortunately, due to „political problems" no Northern Bald Ibis could be transferred from Biricik/Turey to Palmyra/Syria which made the start of a successful supplementation impossible.

In November 2009 an international meeting in Palmyra organized by IAGNBI was held and three members of the Waldrappteam took part (J. Dietl, M. Unsöld, J. Fritz). Here again the decision was made to transfer six Northern Bald Ibis to at least try a supplementation in 2010. But until Februar 2010 no birds have been transferred so far. So the Syrian colony is very close to extinction.

At this meeting Johannes Fritz was elected into the advisory board of IAGNBI (Intern. Advisory Group of the Northern Bald Ibis).

OUTLOOK



In 2010 we will start the fourth humand-led migration from Burghausen in Bavaria to the wintering area in Tuscany. By the looks it will be the last migration that we start from Burghausen. In 2010 we will transform the trainingscamp into a breeding station and for spring 2011 we are finally expecting the first adult birds that fly from Tuscany back to Burghausen.

In Fagagna we hope for the return of the missing birds in spring 2010. Because of the stationary birds in Fagagna we think that it won't be possible to establish a migrating colony there. So we are planning to expand the project in Fagagna to establish a sedentary free living colony.

In Spring 2010 we will start a new project location in the nature reserve Isola della Cona at the adriatic coast. This reserve will be managed by our partner Dr. Fabio Perco. The birds of the 2007 generation are going to become mature in spring 2010. They originally started the migration in Burghausen, but the haven't completed the flight across the alps (see annual report 2007). So we think that they will only fly to northern Italy and will stay there. So we think, that it would be good to get them used to the new "secondary breeding area" at Isola della Cona. This has already worked with the birds in Fagagna originally coming from Scharnstein. There are definitely no other Northern Bald Ibis at Isola della Cona. So we could verify our hypothesis that the autumn migration of free living birds is negatively affected by local stationary birds.

The successful research project about the migration physiology will be continued. Within the frame of a new application, further data collections are planned. Also the PhD about the genetics will be continued. Further PhD projects and master thesis are planned. Finally we are planning to publish some of the data that were collected in the last few years, in 2010.

We have already received multiple requests of TV- and print-media-productions for the migration 2010. So we will be part of the comprehensive filming for the BBC/Discovery Channel production "Earth Flight".

MEDIA REPORTS



Popular scientific Publications

In 2009 we registered 19 media articles in seven different countries around the world. Because we don't have the capacity of a systematic media research, we expect that the actual number of publications about the Waldrappteam is much higher.

TV

Five TV-productions, covering 72 minutes all together, were made about the migration during the project year 2008/09. Including the five-parts BBC production "Natures Miracle Babies". Additionally three more productions are still in progress. Three shows have already been published, two more are in production. Also older productions were still screened during the year. Specially the ORF/ARD production from 2007 'Ein Vogel im Aufwind' as well as the BR production of 2002 'Welt der Tiere'.

Das Erste / W wie Wissen	W wie Wissen
SAT1 / Planetopia	Planetopia
SAT1 / Planetopia	Planetopia
VOX	Spiegel TV
BBC	Nature's Miracle Babies

SCIENTIFIC PUBLICATIONS



Publications

- Dietl, J., Fritz J., Feurle, A., Kotschal, K., Bernroider, F.: Fecal corticosterone monitoring in Northern bald ibis (*Geronticus eremita*) undergoing human-led autumnal migration. Public Library of Science, submitted.
- Fritz, J. Der Waldrapp in den Alpen: Ultraleichtflieger weisen den Weg. *Der Falke*.
- Fritz, J.: Migration patterns in Northern bald ibises; results of the experimental projects and their implications for the international conservation projects. *Proceedings of the International Advisory Group of the Northern Bald Ibis*, submitted.
- Fritz, J.: Migration patterns in Northern bald ibises and their implications for the conservation of migratory colonies. *Proceedings of the International Advisory Group of the Northern Bald Ibis*, submitted.

Talks

- Fritz, J. & Dietl, J.: Internationaler Artenschutz am Beispiel des Waldrapp: Das Projekt Waldrappteam. 142. *Jahresversammlung der Deutschen Ornithologischen Gesellschaft*, Pörschach 2009.
- Fritz, J.: Migration patterns of the Northern bald ibis and their implications for the Syrian NBI conservation project. *3rd Meeting of the International Advisory Group of the Northern Bald Ibis in Palmyra/Syria*.

Posters

- Fritz, J., Dietl, J. & Mason, F. Pattern of spring migration in Northern bald ibises. Poster at the 3rd Meeting of the International Advisory Group of the Northern Bald Ibis in Palmyra/Syria.
- Dietl, J., Fritz, J., Kotschal, K., Feurle, A. & Bernroider, G.: Analysis of flight pattern in Northern bald ibises. Poster at the 3rd Meeting of the International Advisory Group of the Northern Bald Ibis in Palmyra/Syria.

Scientific Publications

- Bichler, M. Der Waldrapp. Bakkalaureatsarbeit Universität Innsbruck.
- Olbrich, J. Nahrungsökologie des Waldrapp. Diplomarbeit, Universität Salzburg.
- Dietl, J. Fecal corticosterone monitoring in Northern bald ibis (*Geronticus eremita*) undergoing human-led autumnal migration. Diplomarbeit, Universität Salzburg.
- Weinel, J. Parasitologische und mikrobiologische Untersuchung beim Waldrapp (*Geronticus eremita*) aus einem EU-Nachzuchtprogramm. Dissertation, Institut für Wildbiologie der Justus-Liebig-Universität Giessen.

SPONSORS 2009

American Association of Zookeepers
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Zoologische Staatssammlung München

PARTNER INSTITUTIONS 2009

Alpenzoo Innsbruck
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