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**Increasing biodiversity
knowledge to support
conservation**

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Editorial

Importance of the shared effort in conservation initiatives

Although the objectives of Project BioMap have been widely explained in preceding numbers of this newsletter it is, nevertheless, important to highlight that they could only be implemented once different national and international organizations had recognized the magnitude of the challenge before them. This project, as part of much wider studies, will give access to invaluable information on the Colombian avifauna contained in natural history collections throughout the world. People interested in Colombian birds, will be able to review, in an easy and fast way, all the information that hundreds of collectors, researchers, naturalists and amateurs have been collecting for decades. This information is a testimony to Colombia's natural heritage.

In this context, I want to highlight the historic value of these collections and to point out their evident importance in conservation efforts for the first decade of the new century. We need to recognize that humanity has continually been destroying its natural heritage, which, year by year, is evident in the catastrophic dimension of the extinction process. One way in which we have been measuring the magnitude of this event as we go forward is the process of identifying and categorizing globally endangered, and more recently nationally endangered, species. Nevertheless, the greatest challenge will be not to keep adding to the testimony of this catastrophe, but to define a way to take conservation measures against this increasing tide. Against this setting the digitalised information of bird museum specimens becomes invaluable, and will help us in elucidating and confirming where the most important sites for the conservation of Biodiversity are, and to prioritize the most effective and certain actions.

But, why biodiversity and not specific animal groups? Because we have to recognize that even though the important bird conservation areas include a wide arrange of other biotic groups, they do not include all of the endemic important elements or more sensitive and vulnerable groups. This is an

important consideration for potentially extending the BioMap initiative to other groups and countries in the tropical Andes.

The BioMap Initiative has been widely accepted worldwide even though activities started only 13 months ago, with data from the AMNH in New York, the NHM in London and an important part of the ICN-UN in Bogotá **NOW** available in internet. This effort, together with those made by the Instituto von Humboldt in their own collections, will hopefully stimulate interest from many more institutions whose collections may be smaller but equally as important.



We know the challenge is even larger within the new geographic and taxonomic framework of the initiative: if the gaps in knowledge are large for a group as well studied as birds, they will be even greater for other animal groups. Some other groups, like amphibians, have to be considered very soon since they are highly vulnerable. We are convinced that the analyses of the information from museums will prove to be one of the last tools that will help formulate creative projects to prevent the extinction of many species.

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NewsByte summary

October 2002: The third Biobyte was sent by email to more than 500 people and organizations. This can be read in English and Spanish in the project web page www.biomap.net

Oct. 16: BioMap was invited to participate in the "Workshop: Botanical Information Management by Internet to Help Modelling Biodiversity" held at the VIII Latin American Botanical Congress and II Colombian Botanical Congress in Cartagena. Diana Arzuza gave a talk on the Project BioMap

Oct. 14-18: Presentation of BioMap at the AndinoNET in Maracay, Venezuela

November 2002: The mailing list of the Colombian Bird Collections Network (RCCA) was established. Achievement of an agreement with 4 Colombian Museums to participate in the Project BioMap and agreements with others are started.

Nov. 4: BioMap meeting with researchers of Conservación Internacional to discuss the use of the BioMap data base for other taxonomic groups

Nov. 8: Participation of BioMap in the meeting "Integrating Systems and Biodiversity Information Networks in the Americas" organized by the Alexander von Humboldt Institute and the IABIN Network.

Nov. 7-11: XV Colombian Ornithology Meeting in Valledupar. BioMap presented two talks about the project.

October – December 2002: Visit to several collections in Venezuela, Ecuador and Perú.

November – December 2002: Visit to 6 large and 12 smaller collections in Europe. About 9.000 Colombian bird specimens were included in the BioMap data base.

December 2002: Visit to the Zoology Museum of the Copenhagen University. About 264 Colombian bird specimens were systematized in the BioMap data base. These include the recent collections made by Jon Fjeldsa and K. E. Jakobsen. Project BioMap was presented at the recently created "Global Biodiversity Information Facility" (GBIF)

January 9 2003: Visit to the Bird Collection of the Tel Aviv University in Israel. No Colombian specimens were found.

Jan. 19: Data of about 50.000 Colombian specimens was published in the BioMap web page. Every month new data will be added to this data base.

Jan. 19: An article about the Project BioMap was published in the National University Newspaper. This newspaper circulates with the National Newspaper El Tiempo.

Jan. 19: National and international press release on the Project and the launch of the first part of the Darwin Data Base

General NewsBytes

Data available in Internet

On January 19th the first group of data gathered and digitized in the museums was set on the internet. About 50,000 data on Colombian bird specimens was made public: 26.000 from the American Museum of Natural History (New York), 7.000 from the Natural History Museum (London) and 15.000 from the Natural Sciences Institute (Bogotá). This data is available for who needs or wants to use or consult it in the BioMap web page: www.biomap.net

News from Europe

Since September 2002, Nigel Cleere has been systematically working through the European collections, databasing and identifying Colombian specimens. He has extensive prior museum experience: 1993 – 2000 visited all of the major collections throughout Europe and North America (and also smaller collections in Africa and South America) to examine all species of Caprimulgiformes as part of his research when writing the first ever guide to nightjars and related birds of the world. Between 2000–2002, Nigel was employed by the Natural History Museum (BMNH), UK to database and curate their entire collection of Caprimulgiformes, and from May to July 2002 volunteered at the BMNH, to assist Paul Salaman databasing all their Colombian birds (6,700 specimens) for Project Biomap. During August 2002, he worked as a volunteer at the American Museum of Natural History (New York), helping the Biomap team ground-truth their Colombian birds (27,000 specimens). In September 2002, Nigel commenced full-time for Project BioMap where he is responsible for data basing Colombian specimens in the European collections.



Between September and December 2002, Nigel has visited six major European collections with the following results. Zoologisch Museum, Amsterdam, Netherlands (ZMA) 370 specimens, Nationaal Natuurhistorisch Museum, Leiden, Netherlands (RMNH) 2500 specimens, Museum für Naturkunde, Berlin, Germany (ZMB) 790 specimens, Staatliches Museum für Naturkunde, Stuttgart, Germany (SMNS) 750 specimens, Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt, Germany (SMF) 3-4000 specimens

and Hessisches Landesmuseum, Darmstadt, Germany (HLMD) where no Colombian specimens were found. He also gathered Colombian specimen data from the following smaller European collections: MNHNL, Luxemburg 100 specimens, MSNM, Milan, Italy 150 specimens, MHNT, Toulouse, France 21 specimens, BMB, Brighton, UK 50 specimens, ZMBN, Bergen, Norway 4 specimens, MZL, Lausanne, Switzerland 6 specimens, LEEDM, Leeds, UK 9 specimens, BZOL, Linz, Austria 7 specimens, SDM, Moscow, Russia 70 specimens, MHNN, Nantes, France 48 specimens, ZMUO, Oslo, Norway 59 specimens, Malmo, Sweden 5 specimens.

Biomap project wishes to thank the curators and other personnel at these collections for their help: Dr. Kees Roselaar (ZMA), Dr. Rene Dekker (RMNH), Dr. Sylke Frahnert, Jürgen Fiebig, Frank Steinhammer (ZMB), Dr. Friederike Woog (SMNS), Dr. Gerald Mayr (SMF), Dr. Wolfgang Schneider (HLMD), Dr. Engel (MNHNL), Giorgio Chiozzi (MSNM), Pierre Dalous (MHNT), , Dr Legg (BMB), Dr. Byrkjedal (ZMBN), Dr. Glaizot (MZL), Adrian Norris (LEEDM), Dr. Aubrecht (BZOL), Igor Fadeev (SDM), Dr. François Meurgey (MHNN), curator in the ZMUO and Sverker Waden (MM).

News from London

Darwin fellows, Juan Carlos Verhelst and Clara Isabel Bohórquez finished their first semester of studies at the King's College in London. As we have mentioned before, they are working for their Masters degree on "Modelling, monitoring and managing the environment". Studies started on September 16th and ended on December 13th, but final projects were turned in by January 2003. Clara Isabel focuses in the area of managing and consulting while Juan Carlos works mainly in research. Both of them were completely dedicated to school since studies demand all their time and effort. They took courses like modelling and monitoring environmental changes and research design. These courses include generalities about history and science philosophy, the framework for environmental sciences and the importance of good design, data gathering and analyzing for the studies. In December and January, Juan Carlos and Clara Isabel helped the Colombian BioMap team at the ICN in Bogotá.



News from Bogotá

In Bogotá, BioMap participated in several meetings. A meeting to discuss the use of the BioMap data base for other taxonomic groups was held at Conservation International and of course some of their personnel also participated in the meeting: José Vicente Rodríguez, José Vicente Rueda, Juan Carlos Rodríguez, Hernando Orozco and Bernabé López-Lanus.

BioMap was invited by the Alexander von Humboldt Institute (IAvH) and the IABIN Network to the meeting "Integrating Systems and Biodiversity Information Networks in the Americas". About 25 people of different Colombian organizations participated in the meeting (IAvH, IABIN, MMA, CARs, ICN, National Parks, and Botanical Gardens Network), and also Alberto Oriza Barrios from Mexico (Coordinator, Project PDDF-GEF IABIN) and Antonio Salas from Peru (Andean Subregion specialist, Project PDDF-GEF IABIN). The meeting was held from 8am-6pm and various projects of databasing of biodiversity data were presented: the Colombian Environmental Information System (SIAC), Inter American Biodiversity Information Network (IABIN), Global Biodiversity Information Facility (GBIF), AndinoNET, Colombian Facility Mechanism, Biodiversity Information System (SIB), Spika Project of the National University, the BioMap Project, the Botanical Gardens National Network and as an example of the IABIN Network a project with introduced species. The meeting was quite interesting and it was a great opportunity for BioMap to share experiences with other projects.



In November we were invited to a meeting about the databasing of the ICN. Topics like databases, how the data should be gathered, personal databases and the ICN Spika Project were discussed. BioMap presented the fields that we are using in our database. XV Ornithology National Meeting in Valledupar. A talk about the BioMap Project was given and a brief of the ICN data of specimens of Cesar, Magdalena, La Guajira and parts of the Sierra Nevada de Santa Marta and Serranía de Perijá. The Sabanas de Patillal and the EcoPark Los Besotes in the Cerro Murillo were visited.

News from Project Manager

In September, Paul Salaman expanded his Project BioMap responsibilities by taking up the position of Biodiversity Science Coordinator for Conservation International - Andes Centre of Biodiversity Conservation, from Venezuela to Bolivia. This involved expanding the BioMap concept across the region and across other environmental sensitive taxa groups, such as amphibians, reptiles, mammals, and selected insect groups. Conservation International was generous in providing an assistant for Paul to database all the European collections over the coming 12 months. So we are pleased to welcome Nigel Cleere as the European Databaser for Project BioMap.



Paul continued to assist Clara and Juan Carlos that setup at King's College, London including tutorials on MSc projects and assist Sussy with the collection workshops and databasing. In December, Paul databased and checked the Zoological Museum, University of Copenhagen collection, which holds 264 specimens, including recent collections by Jon Fjeldsa and K. E. Jakobsen. The visit was made possible from a European Community grant through the Copenhagen Biosystematics Centre (COBICE). Jon Fjeldsa and Niels Krabbe provided invaluable support and assistance. Whilst in Copenhagen, Paul was fortunate in meeting the recent founded Global Biodiversity Information Facility (GBIF), where BioMap was presented. Very positive discussions and agreements were produced and BioMap looks forward to liaising further with this important global initiative.



Between October and December, Paul visited various collections throughout Venezuela, Ecuador and Peru. Positive contacts and discussions were forged and we look forward to working with many of the regions outstanding biological collections. Paul represented BioMap at the initiation of the AndinoNET initiative held in Maracay, Venezuela on 14-18 October where BioMap was presented and discussed as an initiative for aiding taxonomist. Many thanks to BioNET INTERNATIONAL for supporting the visit, especially Richard Smith (BioNET-UK) and Pepe Clavijo (Museo del Instituto de Zoología Agrícola Francisco Fernández Yépez-MIZA).

BioMap was also discussed with IABIN, particularly the GEF PDF Sub-regional coordinators for Venezuela (Eric van Praag) and Colombia to Bolivia (Antonio W. Salas). Again, interest on BioMap was raised and it is hoped that the concept of competent and trained biologists from the region gathering and revising foreign and national Natural History Collections was worth pursuing.

By the end of 2002, Paul had moved to Quito, Ecuador where he will be permanently based.

Other activities:

In November the mailing list of the Colombian Bird Collection Network (RCCA) was established in the internet. This network was product of the meeting of Colombian Bird Collections held in September in Bogotá. The list has more than 30 members, including people from other countries in Latin America and many messages have been sent. The RCCA is an important mechanism for communication and cooperation between national collections that have been very isolated. Address for the RCCA: RCCA@gruposyahoo.com



On January 19th, an article about the BioMap Project written by Mabel Lopez was published in the National University Newspaper. This newspaper circulates with the National newspaper El Tiempo. Mabel Lopez, is a journalist at the National University and was the winner of the second prize of the Colombian Biodiversity Report Prize 2002, given by Conservación Internacional, National Association of Environmental Journalists, International Center of Environmental Journalists and the International Federation of

Environmental Journalists. The article can be read at <http://unperiodico.unal.edu.co>

On January 19th an international press was released with the news on the publication of the first part of BioMap (Darwin Database).

The Universities of Antioquia, Atlántico, Distrital and Cauca agreed on participating in the BioMap Project and agreements with other universities and organizations are being carried on.

In January 2003, Sussy De La Zerda visited the Tel Aviv University Bird Collection in Israel. As we thought, there were no Colombian specimens, even though they do have a few teaching specimens like Toucans, Hummingbirds, Tanagers, but without any specific data. Nevertheless the visit was very interesting and Sussy was able to see the Israeli and African specimens they held. We want to thank Professor Yoram Yom-Tov and Tsila Shariv for their guidance.

National Press Release

In the late 18th century, Colombia was known as the hummingbird paradise. These glittering jewels of the air quickly became the sheik fashion accessory to adorn the hats and cloaks of the wealthy European aristocracy. Sadly with this fame came exploitation. By the early 19th century the growing market in European cities fuelled the killing of hundreds of thousands of hummingbirds, and a single year, one London dealer imported 400,000 hummingbird skins from Bogotá. Referred to as “Bogotá Skins”, the bodies and feathers of these wonders of nature, were soon discarded, like any other has been fashion accessory... Nevertheless, a small fraction of these beautiful skins were salvaged by museum curators and are nowadays held by Natural History Museums across the world. Today, about 250,000 Colombian bird specimens, including about 50,000 “Bogotá skins” are held outside of Colombia, many with accurate information on where they were collected. Only a small fraction of Colombian birds specimens are held within Colombia.

Biodiversity knowledge is power for conservation. Specimens are vital natural resources of the countries historical biodiversity richness and distribution. In a landscape of pasture today, may have once stood lush forest rich in fauna, which long ago had been surveyed by biologists. Gathering the data attached to all Colombia specimen held across the world and within the country would provide an immense knowledge base, invaluable for deciding conservation priorities and focusing research activities.

Colombia is one of the three most biologically diverse countries in the world, yet faces great environmental challenges with conservation action hampered by the lack of data on the distribution of biological diversity. In a bid to redress the balance and assist conservation, the innovative Project BioMap was initiated in 2001 by The Natural History

Museum, Conservation International and the Natural Science Institute of the Colombian National University (ICN).

Project BioMap will gather and share the information on Colombian specimens that are out of Colombia, as well as in the Colombian museums, and will publish the information on the Internet. This information will be available to whoever will need it, and will provide an important tool for conservation and decision makers, since it could be used for monitoring the environment and establishment of conservation projects for the 1,865 Colombian bird species, of which 112 species are considered globally threatened with extinction.



Information on 7,000 specimens held at The Natural History Museum (London), 26,000 skins of the America Museum of Natural History (New York), and about 15,000 of the ICN have been gathered and will be published in the web page on 19th January 2003. BioMap tool includes information on the species and subspecies identification, locality, collector, and other data reported with it. The tool has also individual dictionaries like taxa and localities that helps researchers. With the information, researchers will be able to map historical and present bird distributions using programs like WorldMap by The Natural History Museum.



BioMap has placed great emphasis in National capacity building, like the “bird monitoring techniques field course” held in Central Colombia in August 2003. BioMap also organised the first meeting of Colombian Bird Collections, with representatives from eleven regional bird collections participating. BioMap has also been participating in meetings and events like International Student Conference on Conservation Science and the XV Colombian Ornithological Meeting. Details of the project are reported each 4 months in

the bilingual project BioByte Newsletter available on www.biomap.net

In the following months, BioMap will expand to other taxonomic groups and other Andean countries and will become an invaluable legacy for the scientific community as well as for the conservation of our natural heritage. For more information and see the database, consult www.biomap.net



BioMap Diary

By March 2003 we planned to finish the databasing of the 35,000 bird specimens of the ICN and start with other collections in Colombia; in April we will visit the Universidad de Antioquia in Medellín and around May the Universidad del Cauca in Popayán. In the next few months, Clara Isabel Bohórquez and Juan Carlos Verhelst will be working in the US East Coast Museums from Florida and Louisiana to Delaware, the Academy of Natural Sciences in Philadelphia and the Smithsonian Museum in Washington DC where they hope to gather data of about 28,000 Colombian specimens. Nigel will keep working in European collections in the south and in Germany; Paul will keep revising the database and developing the BioMap Alliance.



BioMap Directive Committee

- Robert Prŷs-Jones** (chair) – The Natural History Museum
Gonzalo Andrade and **F. Gary Stiles** – Instituto de Ciencias Naturales, Universidad Nacional de Colombia
Jose Vicente Rodriguez – Conservation International, Colombia
Alvaro Espinel – Conservation International, Center for Applied Biodiversity Science, USA

