

[www.biomap.net](http://www.biomap.net)

Increasing biodiversity  
knowledge to support  
conservation

Issue 7

June 2004

Page 1 of 6

## Editorial

### Project BioMap: the homestretch

After two and a half years of hard work, Project BioMap is reaching the end of its first phase. Past editorials have stressed the importance of museums, of scientific collecting and of joint efforts for conservation. The time has come to think about the importance and future use of the data compiled.

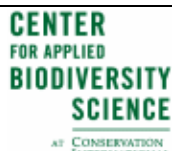
By the end of the project we calculate the Darwin database will have data for over 230,000 Colombian specimens in museums around the world with more than 25,000 person-hours of work invested. This task has been completed in a very professional and meticulous way and data are now being checked and rechecked to assure the highest quality possible. Almost all the information has been compiled in a single database, rather than dispersed among many countries and institutions with obvious difficulties for access. Time fast approaches for this information to be made available and used. The first outcome of the project will be this innovative experience of sharing and making public all this information. Without doubt we have learnt much about database management, data request and use and access of data stored in collections. This learning process surely will cross cultures and country boundaries since this is one of the first experiences of this type in Latin America and has aroused great interest among scientists and curators in other Latin American countries that surely will soon develop similar projects.

The potential applications of the data gathered are very diverse, from obtaining documented lists for specific localities, municipalities or departments, to the support of important conservation initiatives. We will analyze the history of bird collectors in Colombia, how many specimens were collected by each one and in which museums they are deposited. We will also have a very good idea about the amount of specimens collected for each species of Colombian bird, their origins and where they are deposited. With data from localities combined with knowledge about the ecology of each species and present distribution of appropriate habitats, we can model the distributions of each species and subspecies; a powerful tool in conservation biology. This approach was used in a very interesting way in the Red Book of Colombia's Threatened Birds ([Libro Rojo de Aves de Colombia](#)) to add

precision to the category of threat for 112 threatened bird species in the country. One of the current uses of information contained in museum specimens is that of prioritizing conservation areas. With information on the distribution of key species (p.e. endangered or range restricted) areas of special interest for conservation may be identified. Based on these principles [BirdLife International](#), an international partnership of bird conservation organizations, has developed research on Endemic Bird Areas (EBAs) and identifying and protecting the most Important Bird Areas (IBAs) on the planet. The general scope of the IBA program is not only the conservation of birds but of biodiversity, based on the premise that birds are good indicators for biodiversity conservation. Birds have the advantage of being relatively well known in terms of distribution, threats and requirements.

The BioMap information will be of great use in the identification of these important areas and their conservation.

**Loreta Rosselli** [coordinadora@biomap.net](mailto:coordinadora@biomap.net)  
Colombian Coordinator  
Project BioMap



## NewsByte summary

**November – December 2003:** Systematization of 5,456 Colombian specimens from Natural History Museum of Los Angeles County -LACM.

**December 2003 – January 2004:** Systematization of 4,037 skins from the Instituto Vallecaucano de Investigaciones Científicas INCIVA in Cali (Scientific Research Institute of Valle del Cauca).

**January 2004:** Systematization of 2348 Colombian specimens in the Western Foundation of Vertebrate Zoology - WfVZ in California.

**January 2004:** Systematization of 32 Colombian specimens from San Diego Natural History Museum - SDNHM.

**January 2004:** New Colombian coordinator – Loreta Rosselli - takes over.

**January – May 2004:** Revision and correction of Darwin Database (taxonomy, collectors, localities and general tables).



**February 2004:** Systematization of 5,014 skins from the Natural History Museum of the Universidad del Cauca.

**March 2004:** Systematization of 72 specimens from Universidad de Nariño.

**March 2004:** Seventy-three records from Museum “Madre Caridad Brader” of the School of Franciscan sisters in Pasto, Nariño.

**March 2004:** Systematization of 38 skins from of the Champagnat Institute, Pasto.

**April 2004:** Systematization of 790 specimens from the collection of the Natural History Museum of the Universidad de Caldas.

**April 2004:** Systematization of 51 specimens from the La Salle del Museum, Colegio de La Salle, Cúcuta

**April 2004:** Twenty-six entries from San José de Guanentá School, San Gil, Santander.

**April 2004:** 1448 entries from Universidad Industrial de Santander, Bucaramanga.

**May 2004:** Beginning of georeferentiation of localities of birds collected in Colombia.

**May 2004:** Universidad de los Andes, Bogotá 477 specimens were entered in the database.

## General NewsBytes



### News from Colombia

**New national coordinator:** Beginning January, Loreta Rosselli took over as new Colombian coordinator for Project BioMap. Loreta is a biologist graduated from the Universidad de los Andes in Bogotá, with a Masters degree in ornithology from the Universidad de Costa Rica and has worked in different ornithology topics. She will replace Sussy De La Zerda who has moved to San Diego, California. We thank Sussy for her great work and wish her all the best.



**New Director in the Instituto de Ciencias Naturales, Universidad Nacional de Colombia:** Gloria Galeano became the new director of the Instituto de Ciencias Naturales, a principal partner of the BioMap Alliance in replacement of Gonzalo Andrade. Several meetings have taken place to inform her of progress and planning.

On February 12 Andrea Morales, Diana Arzuza and Loreta Rosselli attended a workshop on georeferentiation with Roberto Jaramillo from the GIS department in Conservation International (CI) to resolve questions on the methodology that will be used in assigning geographical coordinates to localities.

Andrea Morales gave talks on the importance and management of biological collections and Project BioMap in the Universidad del Cauca, Universidad de Nariño and Universidad Industrial de Santander.





Andrea Morales and Paula Maldonado (biologist from Javeriana University who entered data from Colombian museums during the first semester of 2004) visited Valle del Cauca, Cauca, Nariño, Caldas and Santander departments.

Collections from INCIVA and the Universidad del Cauca belong to the group that hold more than 4,000 specimens and are very interesting for their regional coverage. They have skins of well-known collectors such as F. Carlos Lehmann and K. von Sneidern.

In Pasto, San Gil and Cúcuta the collections are composed exclusively of specimens mounted for exhibition with little data. The skins date from 1940 and have been collected and mounted by members of religious orders. The specimens are frequently highly toxic since arsenic was used in their preparation at the beginning of the twentieth century.

Collections belonging to public universities (University of Nariño, University of Caldas and University of Industrial de Santander) have specimens with complete data that are unique in their regions and not found in other institutions. These collections are growing and are focused on the local avifaunas.

On May 3 the georeferencing process for localities of the records in BioMap began at high speed. Ecologists Ana Milena Piñeros and Angélica Pérez are helping us in this arduous labor, with support by database expert Juan Carlos Rodríguez from Conservation International-Colombia. The first step in this task has been the standardization of locality names and search for geographical coordinates already available for these localities. Afterwards we will proceed to look for coordinates for localities for which no such data exist.

In collaboration with Mauricio Alvarez and Sergio Córdoba from the Alexander von Humboldt Biological Resources Research Institute a digitalized version of historic, out-of-print works on distribution and taxonomy of Neotropical birds is almost ready to be distributed among Colombian collections.



### News from North America

Sussy De La Zerda finished her visit to various California collections. In the Los Angeles County Museum 5457 records from Colombia in the Museum's database. She checked 1053 specimens for additional details. Most skins are from the 50's and 60's, they belong to 58 families and cover most of the country with an emphasis from Cauca and Nariño departments. Most birds were collected by M.A. Carriker. Kimball Garrett, administrator of the collection collaborated enormously. Leah and Alejandro Gedeon kindly offered accommodation. From June Colombian biologist Sylvia Heredia will collaborate as a volunteer with Project BioMap finishing the revision of specimens in LACM.

In Western Foundation of Vertebrate Zoology (WVZ) holds 2,348 specimens of Colombian birds mostly collected by M.A. Carriker and C.J. Marinkelle in the 60's. The collection director is Linnea Hall, the collection administrator is Rene Colorado, and the administrative director is Sonia Keirans.

In San Diego Natural History Museum (SDNHM) we found 34 skins collected by J.M. Scott and other five people in Valle del Cauca. Some specimens come from animals kept in the San Diego Zoo. Collection curator and administrator: Philip Unit.

In Berkeley curator Carla Cicero and John Dumbacher and Douglas Long, curator and director at the California Academy of Sciences kindly collaborated in our visits. In Berkeley Juan Luis Parra provided accommodation.



## News from Europe

BioMap work was completed in Europe with the systematization of Colombian specimens from all collections by our European cataloguer - Nigel Cleere.

Juan Carlos Verhelst and Clara Isabel Bohórquez continue with their Master's degree studies in King's College, London, UK. They attended classes between January and May and since then commenced their graduate projects which they hope to finish by September. They took courses on Environmental Management, Environmental GIS and Remote Sensing. They are helping with georeferentiation.

## Other news

During this period the BioMap family grew! We welcome the arrival of Tamar Guberek-De La Zerda born to Sussy De La Zerda, former Colombian coordinator, and Thomas Devenish-Arzuza born to Diana Arzuza, Colombian Cataloguer. Congratulations!



## Acknowledgements

The BioMap team wishes to thank all directors, curators and assistants in all the collections visited as well as the directives and administrative personnel of the different institutions for their wonderful collaboration and hospitality. Numerous persons and institutions supported us with accommodations in different cities across the world! The constant help and support of the staff in Conservación Internacional-Colombia and the Instituto de Ciencias Naturales of Universidad Nacional de Colombia has been essential through all this process. **Many thanks to all!**

## BioMap Diary

Activities to be completed over the coming months are:

- Geo-reference all localities of ever specimen.
- Meticulously truth all data in the Darwin database.
- Commence data analysis.
- Organize the national workshop to prioritize conservation and research actions for the future based on information gathered by BioMap.



## BioMap Directive Committee

**Robert Prŷs-Jones** (chair) – The Natural History Museum

**Gloria Galeano**– Instituto de Ciencias Naturales, Universidad Nacional de Colombia

**Jose Vicente Rodriguez** – Conservation International, Colombia

**Alvaro Espinel** – Conservation International, Center for Applied Biodiversity Science, USA



## Darwin Database ~ data update

Current numbers of Colombian specimens in museums around the world have been included in the Darwin database:

### COLOMBIA

<i>Collection</i>	<i>City</i>	<i>Number of specimens</i>
Instituto de Ciencias Naturales UN	Bogotá	32396
Universidad de la Salle, Bogotá	Bogotá	8286
Universidad del Cauca	Popayán	5014
Universidad del Valle	Cali	4950
Colegio San José, Medellín	Medellín	3436
INCIVA	Cali	4137
Universidad Industrial de Santander	Bucaramanga	1448
Universidad de Caldas	Manizales	790
Universidad de Antioquia	Medellín	550
Universidad de los Andes	Bogotá	477
Universidad Distrital	Bogotá	324
Ecoparque Los Yarumos	Manizales	156
Universidad del Atlántico	Barranquilla	188
Museo Madre Caridad Brader	Pasto	73
Universidad de Nariño	Pasto	72
Museo La Salle	Cúcuta	51
INVEMAR	Santa Marta	48
Museo de Historia Natural Instituto Champagnat	Pasto	38
Colegio San José de Guantotá	San Gil	26
U Universidad Nacional, Medellín	Medellín	17
<b>20 museums</b>	<b>Total Colombia</b>	<b>62477</b>

### UNITED STATES

<i>Collection</i>	<i>City</i>	<i>Number of specimens</i>
National Museum of Natural History (Smithsonian)	Washington DC	30268
American Museum of Natural History	New York	26583
Academy of Natural Sciences of Philadelphia	Philadelphia	20269
Carnegie Museum of Natural History	Pittsburgh	13953
Field Museum of Natural History	Chicago	13836
Los Angeles County Museum	Los Angeles	5456
Museum of Comparative Zoology, Harvard	Boston	4953
Museum of Vertebrate Zoology, Univ. of California, Berkeley	Berkeley	3850
Western Foundation of Vertebrate Zoology	Camarillo	2348
Peabody Museum of Natural History, Yale University	New Haven	1832
Museum of Natural Science, Louisiana State University	Baton Rouge	1626
Museum of Zoology, University of Michigan (UMMZ)	Ann Arbor	1362
Delaware Natural History Museum	Wilmington	1343
Cornell University Museum of Vertebrates	Ithaca	1341
Michigan State U. Museum of Zoology	East Lansing	495
Florida Museum of Natural History, University of Florida	Gainesville	322
Cleveland Museum of Natural History	Cleveland	211
California Academy of Sciences	San Francisco	62
San Diego Natural History Museum	San Diego	32
University of Puget Sound, Sclater Museum of Natural History	Tacoma	20
University of New Mexico	Albuquerque	1
<b>21 museums</b>	<b>Total USA</b>	<b>130063</b>

### EUROPE

<i>Collection</i>	<i>City</i>	<i>Country</i>	<i>Number of specimens</i>
-------------------	-------------	----------------	----------------------------

Forschungsinstitut und Naturmuseum Senckenberg	Frankfurt	Germany	2838
Zoologische Staatssammlung	Munich	Germany	1735
Zoologisches Forschungsinstitut und Museum	Bonn	Germany	1101
Staatliches Museum für Naturkunde	Stuttgart	Germany	858
Museum für Naturkunde	Berlin	Germany	755
Staatliches Museum für Tierkunde	Dresden	Germany	507
Institut für Zoologie	Halle	Germany	25
Naturkunde-Museum Bamberg	Bamberg	Germany	14
Naturhistorisches Museum	Viena	Austria	2122
Biologie Zentrum des Oberösterreichisches Landesmuseums	Linz	Austria	7
Institut Royal des Sciences Naturelles de Belgique	Bruselas	Belgium	667
Zoologisk Museum	Copenhagen	Denmark	269
Museo Nacional de Ciencias Naturales	Madrid	Spain	1250
Museu de Zoologia	Barcelona	Spain	3
Muséum National d'Histoire Naturelle	Paris	France	703
Muséum d'Histoire Naturelle de Nantes	Nantes	France	38
Muséum d'Histoire Naturelle de Toulouse	Toulouse	France	19
Nationaal Natuurhistorisch Museum	Leiden	The Netherlands	2149
Zoologisch Museum	Amsterdam	The Netherlands	408
The Natural History Museum (BMNH)	Tring	United Kingdom	6735
National Museums & Galleries on Mersyside	Liverpool	United Kingdom	328
Oxford University Museum	Oxford	United Kingdom	226
University Museum of Cambridge	Cambridge	United Kingdom	211
Royal Albert Memorial & Art Gallery	Exeter	United Kingdom	82
National Museum of Wales	Cardiff	United Kingdom	68
The Manchester Museum	Manchester	United Kingdom	60
Booth Museum	Brighton	United Kingdom	47
Leeds Museum Resource Centre	Leeds	United Kingdom	8
Bolton Museums, Art Gallery & Aquarium	Bolton	United Kingdom	1
Natural History Museum, National Museum of Ireland	Dublin	Ireland	13
Collegio San Giuseppe	Turin	Italy	388
Museo Civico di Storia Naturale 'Giacomo Doria'	Genova	Italy	173
Museo Civico di Storia Naturale	Milan	Italy	136
Museo Civico di Zoologia	Rome	Italy	12
Museo Regionale di Scienze Naturali	Turin	Italy	3
Musée National d'Histoire Naturelle	Luxemburg	Luxembourg	97
Zoologisk Museum	Oslo	Norway	55
Zoologisk Museum	Bergen	Norway	5
Darwin Museum	Moscow	Russia	68
Naturhistoriska Riksmuseet	Stockholm	Sweden	116
Malmö Museer	Malmö	Sweden	5
Museum d'Histoire Naturelle de Geneve	Geneva	Switzerland	2742
Naturhistorisches Museum	Bern	Switzerland	250
Museum d'Histoire Naturelle de Neuchatel	Neuchatel	Switzerland	248
Musée Zoologie	Lausanne	Switzerland	5
<b>45 museos de Europa</b>			<b>27550</b>
	<b>Others</b>		
Auckland Museum	Auckland	New Zealand	13

**Grand total through May 2004: 87 museums, 220.103 specimens**