



INSTITUTO DE CIENCIAS NATURALES
www.biomap.net



University of London

Editorial

Welcome to the first **BioByte** – the quarterly newsletter of PROJECT BIOMAP. It is our pleasure to introduce our recent activities and discuss more about BioMap.

What is BioMap?

Limited time and funds is forcing conservation to be selective and cost-efficient. Priority-led action must be based on sound knowledge. However, the paucity of information on biodiversity distribution in many “megadiverse” nations hinders reliable assessments and therefore timely and targeted action. Fieldwork to collect data is necessary but time-consuming, yet a wealth of accessible information exists and is immediately accessible in the form of museum collections – a vast legacy and largely untapped biodiversity resource.

Biodiversity information, and its effective use, provides an essential tool to make both routine and critical decisions, such as environmental monitoring and enacting conservation action. It is vital that we know what and where our natural resources are, in order to influence management actions.

Colombia is one of the top megadiversity nations in the world, with 15% of all known terrestrial species and just 0.8% of the world's surface area that contains 18 Ecoregions and 65 ecosystem types. Colombia has the greatest bird diversity in the world with 1,865 bird species, including 193 “Endemic Bird Area” species. It is widely recognized that Colombia faces great conservation challenges and large swaths of the country remain biologically little known.

Birds are the best-known biological group in terms of taxonomy and distribution. Accurate locality-based information of all Colombian bird taxa (to subspecies level) would permit detailed distribution modelling, using Geographical Information Systems (GIS) and WorldMap, to provide a powerful tool for conservation planning.

PROJECT BIOMAP is an initiative to formulate priority-setting strategies to effectively and cost-efficiently focus research and conservation action, through enhancing biodiversity knowledge and data repatriation. This model project, led by a global BioMap alliance of conservation and academic institutions and **funded by the Darwin Initiative and Conservation International**, will compile

locality data of Colombian birds, principally from museum specimens, and make them publicly available through the internet. Using GIS/WorldMap analyses, BIOMAP will identify and prioritise target areas for environmental protection and sustainable management plans. BIOMAP is an innovative approach for assimilating and repatriating data to influence five principal targets:

- *institutional capacity building* (strategic action plans and decision-makers workshops to improve planning);
- *training* (workshops in Colombia);
- *research* (two MSc theses, GIS/WorldMap data analysis, conservation & management strategies);
- *implementation of the Biodiversity Convention* (BIOMAP addresses eight Articles); and
- *environmental awareness* (birds are a powerful tool for conservation).

Kicking off!

After a delay in starting BioMap, we have made good progress since commencing on 1st November 2001. A few of our achievements over the past three months, include:

- www.biomap.net launched,
- all BioMap staff selected (5 from 30 applicants),
- 6-day training workshop completed in January,
- beta testing BioMap databasing programme, and
- synonyms of all bird taxa (3000+) compiled.
- comprehensive locality database compiled.
- compiling a database of literature.
- BIOMAP office in ICN, National University, Bogotá

Within just 3 months we are now a fully established team and ready to start databasing collection-based specimen locality data. The BioMap full-time staff team of six, all but one of whom are Colombian, is based with Dr. F. Gary Stiles in ICN in Colombia and Dr. Robert Prys-Jones at NHM in the UK. Databasing is commencing of both the ca.32,000 specimen collection of ICN and of the ca.20,000 Colombian specimens in NHM in March. In mid-April similar work on the ca.30,000 Colombian specimens at the American Museum of Natural History (NY) will begin.

We hope this newsletter will inform you of BIOMAP progress thus far, and help chart the next three months. Issue 2 will be e-mailed by Friday 17th May.

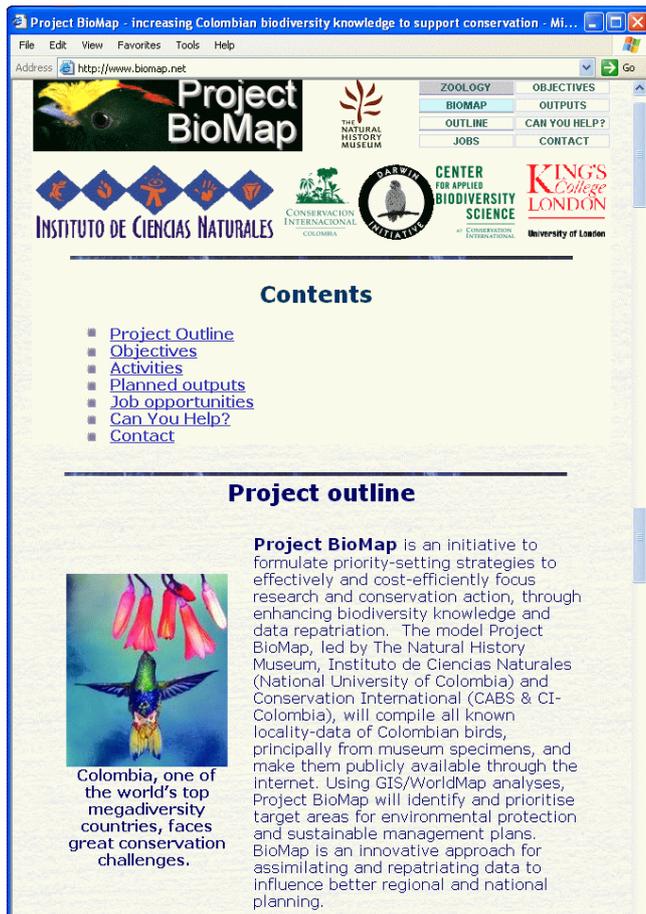
Dr. Paul Salaman, Manager, biomap@nhm.ac.uk
Sussy de la Zerda, Colombian Coordinator,
coordinadora@biomap.net

BioByte News

November 1 2001: Project BioMap commences.

Nov 6: A new taxon of Grallaria (Antpitta) recognised in The Natural History Museum bird collection, having been collected 120 years ago in central Colombia. Presently being described by Project BioMap.

Nov 15: Project website launched at www.biomap.net plus www.biodiversityscience.org and www.nhm.ac.uk/zoology/biomap/biomap.html (one of the top hitters in NHM zoology web pages).



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Project outline

Project BioMap is an initiative to formulate priority-setting strategies to effectively and cost-efficiently focus research and conservation action, through enhancing biodiversity knowledge and data repatriation. The model Project BioMap, led by The Natural History Museum, Instituto de Ciencias Naturales (National University of Colombia) and Conservation International (CABS & CI-Colombia), will compile all known locality-data of Colombian birds, principally from museum specimens, and make them publicly available through the internet. Using GIS/WorldMap analyses, Project BioMap will identify and prioritise target areas for environmental protection and sustainable management plans. BioMap is an innovative approach for assimilating and repatriating data to influence better regional and national planning.

Colombia, one of the world's top megadiversity countries, faces great conservation challenges.

Nov 16: Five positions vacant for BioMap staff were publicized by email to over 200 people and institutions in Colombia, the Colombian ornithology listserver (RNOA), and through the webpage.

Nov 28-29: Discussions between BioMap and American Museum of Natural History (AMNH) in New York lay the groundwork for commencing on the ca.30,000 Colombian specimens held there (19,818 plus ca.10,000 Rothschild specimens) in mid-April.

Nov 30-Dec 8: BioMap databasing programme developed at CI-CABS (Washington DC), which will undergo beta-testing through January-February 2002.

Dec 4: Received the support of Mort and Phyllis Isler (Washington DC) with a digitised location gazetteer (based on Antbirds) for Project BioMap.

Dec 5: Discussion between BioMap and Dr. Gary Graves at the National Museum of Natural History (Smithsonian), laying the groundwork for an agreement.

Dec 7: Thirty applicants for five BioMap staff positions as selection process commences.

Dec 9-15: Selecting and interviewing applicants for BioMap staff positions in Bogotá by José Vicente Rodríguez (CI-Colombia), Alvaro Espinel (CI-CABS), Gary Stiles (ICN), and Paul Salaman (for Robert Prys-Jones).

Dec 17: BioMap staff selected with unanimous agreement.

Dec 16: Meeting Juan Guillermo Jaramillo with Alvaro Espinel and Paul Salaman in Medellín regarding database cooperation by Interconexión Eléctrica (ISA).

January 18-19 2002: Preparing BioMap training workshop.

Jan 21-26: Six-day BioMap training workshop with six staff, plus two MSc candidates (Ana Maria & Maria Angela). Workshop conducted by Gary Stiles, Alvaro Espinel, and Paul Salaman. Additional participation includes 2 staff from Instituto Alexander von Humboldt (IAvH), 3 CI-Colombia staff and an ornithology student from Universidad Nacional (15 people in total).



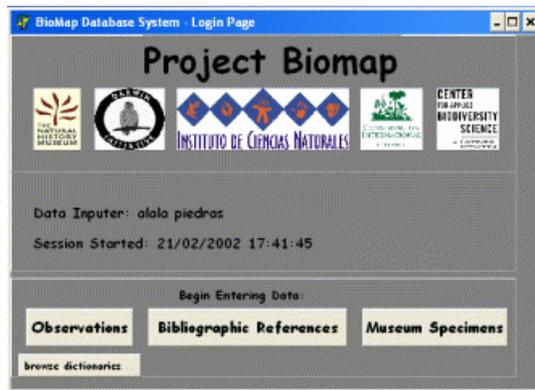
Jan 27-Feb 1: Tropical Andes "Center for Biodiversity Conservation" workshop in Cartagena with Alvaro Espinel and Paul Salaman discussing BioMap concept with interested organizations from Andean nations.



Feb 2-3: Ornithological field visit to Sierra Nevada de Santa Marta by CI-CABS staff Dr. Thomas Brooks and John Pilgrim, plus Paul Salaman.

Databasing News

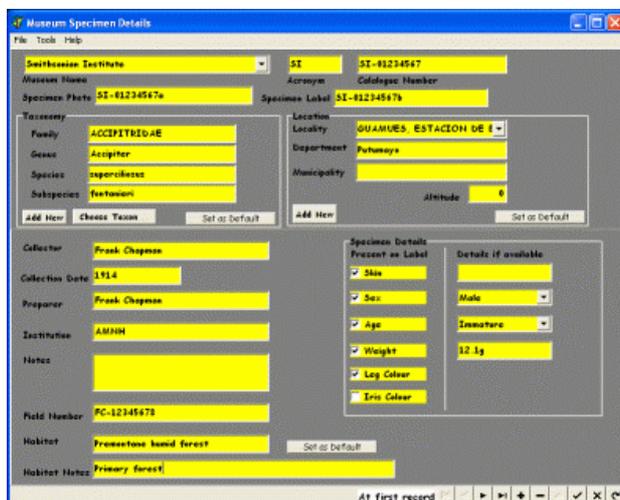
Alvaro Espinel, Minhaj Hasan and Gillian Edgelow at CI-CABS have developed the BioMap Data Entry Tool programme since November 2001. The programme has undergone extensive α -testing in January-February 2002. The final version will be available from early March on the website and by requesting a copy via email. The file compresses to <2 megabytes (zipped).



The self-standing database comprises two key features:

- 1) A DBS application file has an introductory window for log in and then direct access to three data entry windows. All data required within each of the three data sources -specimens, observations and literature- are entered within a single window, so there is no need to swap between sheets within each source category.
- 2) Five key dictionaries are the foundation of the Data Entry windows. The dictionaries are: contributors (authors), institutions, locations (full gazetteer), species nomenclature (including synonyms), and bibliography, together with many smaller reference dictionaries. Dictionaries are vital to standardise information entered and vital to simplify the job of data entry personnel. The location dictionary has >1,700 geo-referenced localities (latitude-longitude-altitude), and the nomenclature dictionary has 3,399 bird taxa (1,874 species), and includes Spanish and English names plus >1500 synonyms.

The final version will be circulated to the ornithological community in Colombia for comments shortly.



BioMap staff

The Project Manager, **Dr. Paul Salaman**, instigated the project on 1st November at NHM and is a Research Fellow at both CI-CABS and NHM for BIOMAP. He graduated from the University of Oxford earlier in 2001 and has over a decade of ornithological research in Colombia.

The announcement to Colombians for five BioMap staff positions was extremely successful with 30 applicants. The selection process was extremely difficult owing to the outstanding qualities of all applicants. However, within one month from the first national announcement (to over 200 individuals and institutions) the BioMap Directive Committee selected the following candidates:

Colombian Coordinator, **Sussy de la Zerda** has a BSc from Universidad de los Andes, Bogotá, and MSc from Virginia Polytechnic Institute & State University. She is President of the Bogotá Ornithological Association (ABO) and founding member of ABO and the Colombian Ornithological Association (ACO). Ten years of ornithological research in Colombia and co-author of the Bogotá Bird Guide.

Darwin Fellow (US cataloguer & MSc at King's College, London), **Juan Carlos Verhelst**, has a BSc from Universidad de los Andes, is a member of both Antioquia (SAO) and Caldas (SCO) Ornithology Societies and has been conducting ornithological research for 7 years, particularly on the birds of shade-coffee & forest remnants.

Darwin Fellow, **Clara Isabel Bohórquez** has a BSc from Universidad Nacional and worked in ornithological research in Arizona (Uni of Montana) and throughout Colombia for seven years. She also has extensive experience collecting and working in the ICN collection. ACO founding member.

Colombian Cataloguer, **Diana Arzuza**, has a BSc from Atlantic University in Barranquilla. She is the founder and President of Atlantic Ornithology Foundation-ORNIAT and coordinated investigations in the Caribbean region of Colombia for the past 4 years.

Colombian Cataloguer, **Andrea Morales**, has a BSc from Pontificia Universidad Javeriana and is a member of ABO. She has coordinated education and environmental protection projects for birds in recent years.

A personal webpage for each member of BIOMAP can be viewed at www.biomap.net from early March.

The BioMap Directive Committee unanimously agreed that **María Angela Echeverry** and **Ana María Castaño** are outstanding applicants for Darwin Fellows. They agreed that the project should attempt to seek funds so they can also participate and assist with databasing in Europe and with literature sources. There is no obligation, but with half of the MSc costs available from King's College, London (*ca.*US\$7,000), BioMap will attempt to seek the additional US\$35,000 required for each candidate. Presently, we are seeking additional funding and request information for additional sources to apply to.

BioMap Workshop

A highly successful six-day BIOMAP training workshop was conducted from 21-26 January 2002. Gary Stiles and Alvaro Espinel conducted the workshop for the six BIOMAP staff, plus two Darwin Fellow candidates. Additional participants including two staff from Instituto Alexander von Humboldt (IAvH), 3 staff from CI-Colombia & an ornithology student from Universidad Nacional. 15 people participated with over 450 person training hours completed over six days.



- Jan 21:** Introduction to BIOMAP - José Vicente Rodriguez. Project concept, timetable and contracts discussed.
- Jan 22:** The History of Colombian Ornithology – FGS
Literature of Colombian birds – FGS
- Jan 23:** Species concepts – FGS (F. Gary Stiles)
Meeting - Colombian Ornithological Association
Specimen examination – FGS
- Jan 24:** Care and management of bird collection – FGS
Preparation of specimens – FGS
- Jan 25:** BioMap database presentation – Alvaro Espinel
Experimental data entry on four laptops.
- Jan 26:** Beta-testing the BioMap database and finally recommendations and comments.

The course was invaluable in bringing together the BioMap team which is both highly motivated and enthusiastic to commence and complete this 3 year project.



BioMap Diary

March: BioMap database programme online.

March 15: Memorandum for museum cooperation.

March 25-27: BioMap poster presentation at the "Student Conference on Conservation Science" in the University of Cambridge, UK.

April 15: Databasing in the USA commences.

April 22-26: Interactive session by Project BioMap at Conservation International's Annual Meeting "Zero Biodiversity Loss".

April 30: First 6-month report to the Darwin Initiative.

May 1: UK and Colombia press release of Project BioMap.

May 17: Issue 2 of BioByte emailed. Includes editorial "Why Museums Matter" by Dr. Robert Prys-Jones.

June 1-15: III International theory-practical course "Care and management of Natural History Collections". BioMap has three staff participating.

Scientific and technical network website for participants in Project BioMap established.

Job opportunities

CALL FOR FIVE COLOMBIAN ORNITHOLOGISTS
For further information contact US.

DARWIN FELLOWS: 2 Colombian researchers are sought to catalogue bird specimens, primarily in the USA, and undertake an MSc at King's College, London. Duration of 28 months from 1 April 2002, and includes 17 months databasing collections. Stipend total c. US\$30,000, plus MSc fees and international travel.



COLOMBIAN ORNITHOLOGICAL COORDINATOR: This position will coordinate activities within Colombia, primarily supervising two researchers and organizing fieldwork and additional initiatives. Duration of 36 months from 21 Jan 2002 based at ICN in Bogotá. Annual salary (part-time) c. US\$8,000.

COLOMBIAN ORNITHOLOGICAL CATALOGUERS: Two researchers are sought to catalogue Colombian museum collections, database literature information, assist in fieldwork, and other initiatives. Duration of 36 months from 21 Jan 2002 based at ICN in Bogotá. Annual salary c. US\$7,500.

BioMap Directive Committee

Robert Prys-Jones (chair) – The Natural History Museum.

Gonzalo Andrade & 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

