Biodiversity Data Efforts in the Pacific

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TOPICS

- Pacific Basin Information Node
- Pacific Biodiversity Information

Forum
PBIN CONCEPT

• NATIONAL INFORMATION PARTNERSHIP

• REGIONAL COMPONENT OF THE US NATIONAL SYSTEM

• REGIONAL BIODIVERSITY INTERESTS
PBIN CAPABILITIES

• Analytical & Synthesis Capabilities
• Collaboratoria
• Data Warehousing
• Technology Support
• Training
Key Elements

• Biodiversity Enterprise
• Distributed Data Model
• Relevant Biodiversity Issues
• Key Content
• Appropriate Standards & Technologies
CURRENT SITUATION

- Taxonomic Services
- Map Services
- Invasive Species Theme
- Avian Conservation
- Ecosystem — Integrated Science
MAP SERVICE

Key Question: Where is it?

- Key Base Layers
- Current Functionality
- Next Steps
TAXONOMIC SERVICE

Key Question: What is it?

- ITIS Pacific
- 600K+ Specimens
- On-line Images and Keys
Akohekohe

(Phaenornis dotola)

**Taxonomic Information**

By 1989, Akohekohe were limited to a range of 0.5 km² estimated at 3,765 ± 375 pairs or 1,474 ± 167 individuals (Scott et al. 1988). Scott et al. (1988) designated three sub-populations where densities exceeded 200 birds/km². Subsequent surveys by The Nature Conservancy provide evidence that the population in and west of Waiānuenue Reservoir persists (USFWS-HBDFP unpubl. data), although density estimates are currently unavailable. Surveys in the remainder of the range yielded similar population densities as Scott et al. (1988). Engle (1962) estimated densities in the Hakalau Natural Area Reserve to be 183 birds/km² in 1961, while Byers et al. (1976) found the population to average 200 birds/km² in 1969–1970. Densities in the upper Keawaiki Valley reveal that this sub-population also persists (USFWS-HBDFP unpubl. data), although density estimates are currently unavailable. While Akohekohe may have recently undergone range contraction at lower elevations, the population currently appears to be stable at high elevations.

**Akohekohe Resources**

Click on image to see full size.

Go to interactive map.
NON-GOVERNMENTAL & EDUCATIONAL INSTITUTIONS

Bishop Museum

The Nature Conservancy of Hawaii

University of Hawaii
  - HI Natural Heritage Program
  - Maui High Performance Computing Center
  - Center for Conservation Research & Training

Island Invasive Species Committees

Hawaii Forest Bird Recovery

Maui Coastal Land Trust

Maui Community College
STATE/FEDERAL AGENCIES

HI DLNR
HDOA
USDA
  - US Forest Service
  - APHIS/PPQ
US Fish & Wildlife Service
National Park Service
US Geological Survey
  - NBII
  - National Map
  - Pacific Islands Ecosystem Research Center
  - Water Resources Discipline
International Organizations

- Pacific Science Association
- Global Taxonomy Initiative
- Global Biodiversity Information Facility
- BioNET International
- South Pacific Regional Environmental Program
- Secretariat for the Pacific Community
- Invasive Species Specialist Group (IUCN)
- Global Invasive Species Program
- PACINET
- EANET
- ASEANET
PBIF

- Established by the Pacific Science Association
- Includes Regional Organizations
- Pacific Island Nations
- Pacific Island Territories
VISION

Informed environmental decision-making in the Pacific supported by the improved generation and usefulness of biodiversity information resources from the Pacific region.
GOAL

PBIF seeks to develop a complete, scientifically sound, and electronically accessible Pacific biological knowledge base and make it widely available to local, national, regional, and global users for decision-making.
STRATEGY

• Link to Existing Data and Information
• Develop Bibliographies
• Develop Species Checklists
• Implement Services
• Outreach & Networking
• Review Progress After Year One
PROJECTS (examples)

- Biological Survey of the Pacific
- Sub-regional Biodiversity Inventory
- In-country Data Bases
- Taxonomic Capacity Building
- Regional Gazetteer
- Informatics support to PABITRA
- Regional Invasive species information system
- Data repatriation
CURRENT PROJECTS

- ITIS Pacific
- Species 2000 Partnership
- Cook Islands Natural Heritage Program
- Spatial Imagery for US Territories
- SPREP Collaboration
- SPC Invasive Pests Data
- OBIS Portal
OPERATING VALUES

- Openness
- Transparency and Active Data Dissemination
- Quality control, Data validation and Authentication
- Management Accountability and Funding
- Assignment and Assumption of Formal Responsibilities
- Legal and Cultural Responsibility
- Efficiency and Flexibility
- Technical and Semantic Interoperability of Databases
OPPORTUNITIES

INFRASTRUCTURE
• Biodiversity Data Standards
• Interoperability of Distributed Services

DATA
• Resource of Biodiversity data (PBIN/NOAA)
• Climate, Oceanographic Data (NOAA)

GOAL = Integrative Modeling