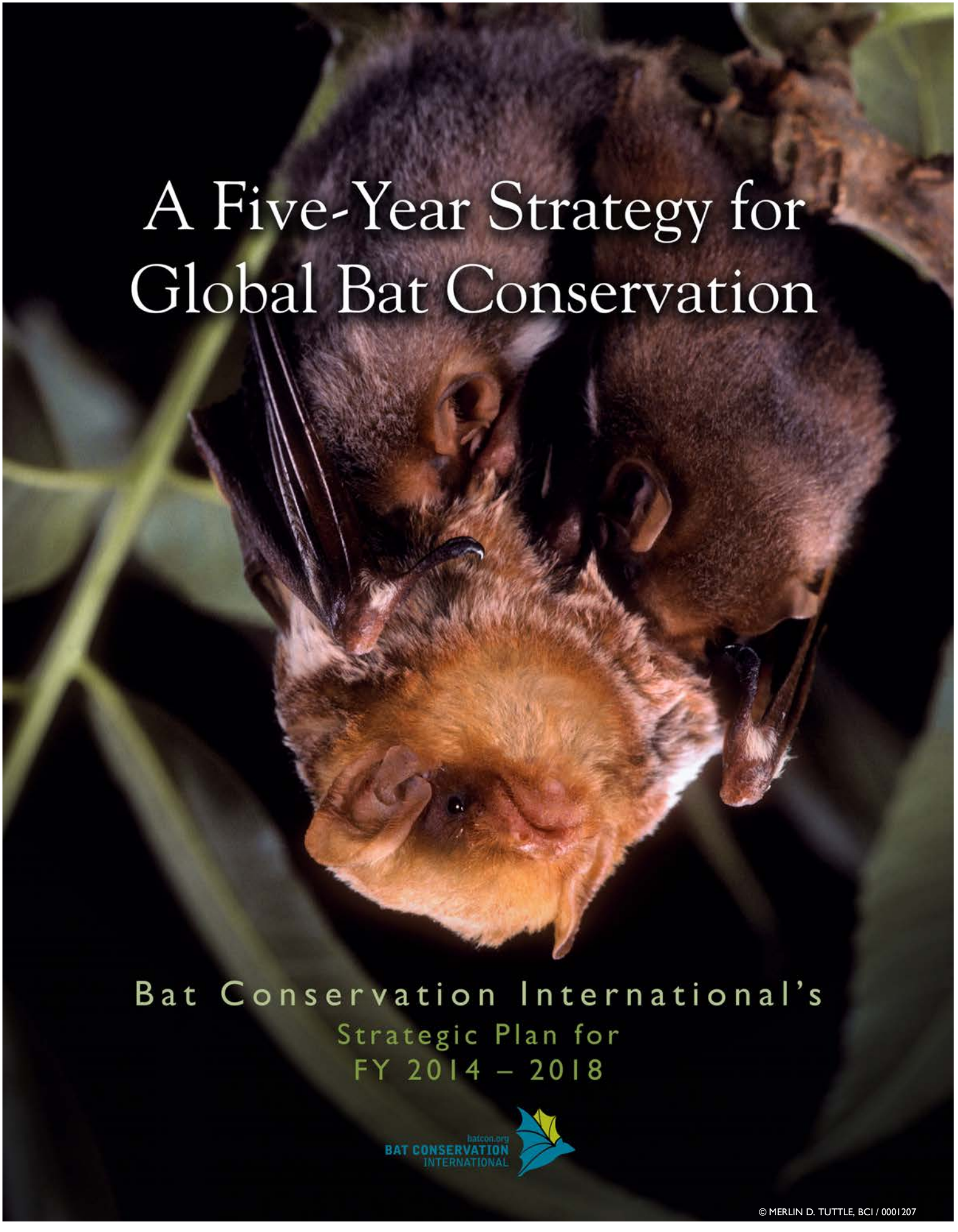

A Five-Year Strategy for Global Bat Conservation

Bat Conservation International's Strategic Plan for FY 2014 – 2018

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Bat Conservation International

Bat Conservation International (BCI) has been a leader in the conservation of bats and their ecosystems for more than 30 years. Going forward, BCI will work with partner organizations to conserve bats at a global scale, preventing further extinctions, identifying and protecting the world's Significant Bat Areas and ensuring lasting survival of the world's 1,300+ species of bats.

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Executive Summary

The Case for Conserving Bats

Bats have been on Earth for more than 60 million years. They are the second largest order of mammals, with more than 1,300 species and are widely dispersed across six continents. They provide annually hundreds of billions of dollars in pest control, plant pollination and seed dispersal, making them essential to the health of agriculture, forestry and hundreds of temperate and tropical ecosystems.

Bats, like so many other species, are under unprecedented threat from widespread habitat destruction, invasive species, hunting, accelerating climate change, and other stresses. Without concerted international action, bat populations will continue to fall, driving many species to extinction.

With this five-year strategic plan, Bat Conservation International re-dedicates itself to the lasting conservation of the world's 1,300+ species of bats. BCI will transform itself into a global leader in bat conservation, working at scale with multiple government and international agencies, networks of scientists, non-governmental organizations, corporations and local communities to **prevent further extinctions** of bat species and to identify and protect the world's **Significant Bat Areas** (SBAs).

Prioritizing conservation action among 1,300+ species requires the best possible scientific information: BCI and Washington DC-based NatureServe will establish a permanent **global inventory for bats** allowing objective, science-based conservation and land-use decision making. We will work with many of the world's largest public and private institutions, including major corporations, to incorporate bats into their conservation and development planning, working on the ground meanwhile with multiple local partners, helping them build their conservation capacity and develop innovative conservation solutions. While ensuring the

survival of the world's most threatened bats, we will also identify and protect areas of outstanding bat diversity, key migratory corridors and mega-populations of bats.

BCI will engage increasingly in creating the **legal and policy framework** needed to protect bats around the world, building public appreciation for bats and documenting the astounding array of ecosystem functions and services bats provide. In the debate over bats as vectors of zoonotic diseases, BCI will become an influential advocate for a balanced "One Health" approach that minimizes human-bat interactions by protecting bats' essential habitats.

Ultimately, BCI envisions a future in which bats are universally valued for their intrinsic, economic and ecological importance and enjoy broad legal protections at all levels of society, with all species of bats secure from human-caused extinction.

Bat Conservation International will maximize its conservation impact by focusing on **ten critical conservation strategies**[1]:

1. **Accelerate Scientific Research**
   Large gaps in our knowledge of the location and range, population, habitat requirements, ecology and threats for each species of bat persist, with 30 percent of all bat species considered especially "data deficient" by scientists. BCI will partner with Washington DC-based NatureServe and many others to create a global inventory of the location, population size and stability of bat species that allows BCI and others to set increasingly objective priorities for protecting bat species. BCI and its partners will also help populate the growing DNA and acoustic databases for bats and expand its Global Grassroots Grants program and other efforts to answer questions essential to bats' lasting conservation.

2. **Prevent Extinctions**
   BCI will work with multiple partners at all levels of society to identify threatened and range-restricted species of bats, especially those listed as Endangered or Critically Endangered by The International Union for the Conservation of Nature (IUCN) and move quickly to halt their decline.

[1] Strategies 2 – 4, which will be used to identify Significant Bat Areas, are drawn from the international definitions used by multiple agencies and organizations to define "Key Biodiversity Areas." (see pp.21-22)

3. **Protect Intact Areas with Highly Diverse Bat Communities**
   BCI will seek out opportunities to leverage its conservation impact by identifying and protecting landscapes of high ecological integrity with high bat species diversity.

4. **Preserve Mega-Populations of Bats**
   Bats' importance to their ecosystems is difficult to overstate. This is particularly true where bat populations number in the many millions, as with Mexican free-tailed bats in the Texas Hill Country and straw-colored fruit bat colonies in Africa. The ecosystem services provided by these mega-populations are profound and if lost, would have serious consequences for agriculture, forestry and ecosystem health. Such populations also hold significant potential for educating the public. BCI will identify and protect mega-populations of bats wherever they are found, including areas containing a high percentage of the total population of individual bat species (major hibernacula, roosting colonies, migratory concentrations, etc.).

5. **Forge Global and Regional Strategies and Partnerships**
   Arresting and reversing the decline of bats requires an integrated global effort. BCI will forge partnerships with myriad organizations at the local, country, regional and global level, including organizations like the World Bank and other international development agencies and with the resource-extraction and energy industries to prevent the loss of habitat for priority species. BCI will also engage and work to strengthen the regional bat scientific and conservation networks with the long-term goal of building a unified global bat federation.

6. **Address Threats Impacting Multiple Species at Multiple Sites**
   White-nose Syndrome and wind energy facilities are two of several serious threats affecting multiple species of bats across large portions of the world. BCI will work at scale to proactively develop strategies for minimizing such threats.

7. **Promote Community-Based Conservation of Bats**
   Conservation is ultimately local. BCI will partner with and help strengthen the ability of local organizations and communities to protect globally threatened bat species and Significant Bat Areas. Much of BCI's education and marketing will take place at the community level.

8. **Create and Help Enforce Legal and Policy Frameworks**
   Outside of Western Europe, bats have few legal protections and are classified as vermin in some countries. BCI will build public understanding and support for bats and work to create greater regulatory and legal safeguards in the places we work, with the long-term goal of creating an international bat conservation treaty.

9. **Help Develop and Perfect Important Technologies**
   BCI will help identify needed technologies and work with the scientific community and the nonprofit and for-profit sectors to develop and perfect them. These would include GPS transmitters to track small insectivorous bats across large landscapes or in migration; perfection of acoustic bat deterrents for wind turbines; and consumer-friendly bat detection and identification devices.

10. Invest in Tomorrow's Conservation Leadership

One of BCI's greatest impacts has been its support of promising students and young scientists who have since emerged as leaders in the study and conservation of bats. BCI will expand its scholarship program and launch new initiatives to create and support a new generation of talented young researchers and conservationists dedicated to the lasting survival of the world's 1,300+ species of bats.

Young scientists sponsored by BCI working in Malaysia. Investing in the training of talented students and building the conservation capacity of local partners are BCI priorities.

I: BCI's Global Vision

Bat Conservation International is dedicated to the enduring protection of the world's 1,300+ species of bats and their habitats and creating a world in which bats and humans successfully coexist. In pursuit of this vision, during the next five years BCI will work worldwide at scale with local, regional, national and multinational public and private partners to

- Respond rapidly and effectively to bat conservation crises, preventing the extinction of threatened bats and the extirpation of globally significant populations of bats.
- Identify, prioritize and begin conserving the world's most "Significant Bat Areas."
- Respond strategically to broad, irreversible threats that impact bats at multiple locations around the world.
- Build a global network of conservation biologists, NGOs, corporations, public agencies, local communities and regional bat scientific networks to address global issues impacting bat species.
- Create the first actionable global bat inventory and conservation database.
- Empower the next generation of bat conservationists and scientists through strategically targeted scholarships and grants.
- Stimulate research on the most pressing scientific questions relating to the lasting protection and value of all bat species.
- Work throughout the world to develop the public policy frameworks needed to safeguard bats.
- Educate key communities and the public at large on the importance of bats, raising their profile as an order of mammals worthy of concerted attention and action.

BCI Core Values & Operating Principles

Bat Conservation International is dedicated to the following values:

Tangible and Lasting Conservation Results: BCI recognizes the mounting pressures on bats throughout the world and is dedicated to working at a global scale, leveraging BCI's human and financial resources many times over through targeted innovation, conservation action and enhancing the capacity of partners. We are dedicated to finding "win-win" solutions that safeguard bats and help communities meet their related economic, social and public health needs without compromising our core mission of protecting bats and their habitats worldwide.

Respect and Commitment to Diversity: As a global organization, BCI respects the beliefs, cultural traditions and socioeconomic and political conditions that distinguish communities and countries. We value the unique perspectives and qualities of each person and create an environment of trust, mutual respect and teamwork within and outside BCI. We are committed to strengthening the diversity of our Board, staff and volunteers.

Integrity and Accountability: BCI's Board of Directors, staff and volunteers are dedicated to the highest ethical and professional standards, acting with complete honesty, transparency and fair dealing, and obeying all applicable laws and regulations wherever we work. We are accountable to our mission, members, partners and each other in upholding our values, knowing that lasting conservation success depends not only on what we do, but how we do it.

BCI also adheres to the following **core operating principals**:

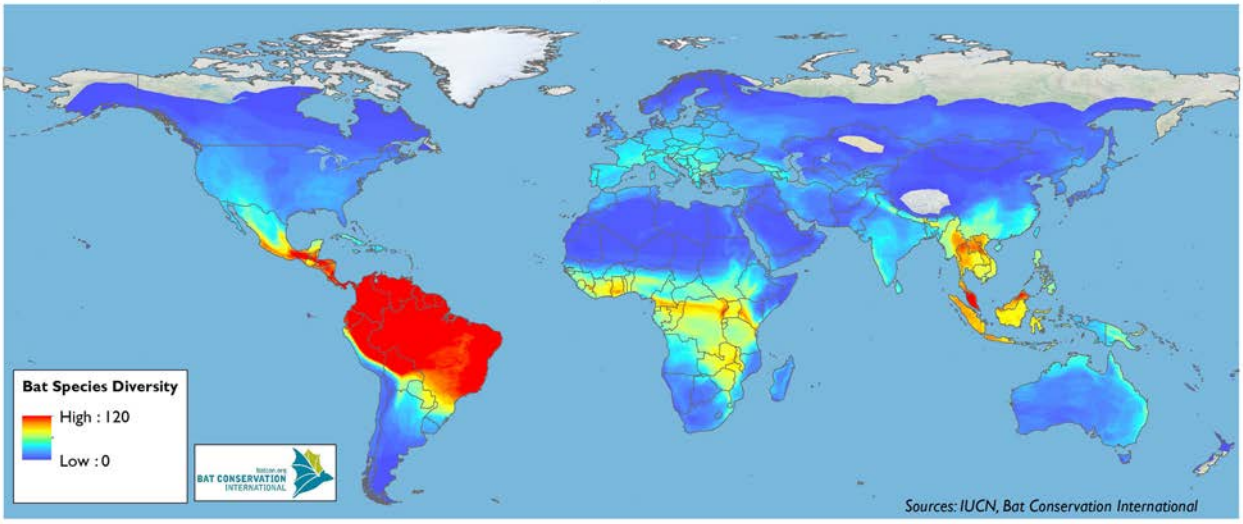
- We collaborate with government, industry, academia, communities and the nonprofit sector to achieve lasting conservation at scale for the world's bats.
- We work to build the capacity of myriad public and private partners, scientific networks, and communities to protect bats and their essential habitats.
- We identify, promote and fund research on important scientific and conservation questions that contribute to the lasting protection of bats.
- We engage on priority conservation needs using the best available scientific and management information to avoid further extinctions and resolve threats to bats.
- We inspire people, communities, government agencies and organizations to act through partnerships and networks, providing training, technical information, management know-how and other resources to protect bats.
- BCI engages in strong working relationships with private community leaders and public agencies and officials in the countries and localities in which we work, and abides by all applicable laws and regulations in those countries.

II: The Diversity, Importance & Status of Bats

Bats comprise nearly one-fourth of the world's mammal species and occupy every continent but Antarctica. Sixty million years of evolution have produced more than 1,300 extant species, each uniquely adapted to its habitat. Bats are essential to the health of their ecosystems. Insectivorous bats consume vast quantities of night-flying insects; bats also pollinate more than 500 plant species, including wild bananas, durian, saguaro cactus and agave. Fruit-eating bats widely disperse seeds for dates, figs, and many other plants, regenerating tropical forests in the process. These activities provide annually hundreds of billions of dollars in ecosystems services for agriculture and forestry around the globe, though studies quantifying these services are few.

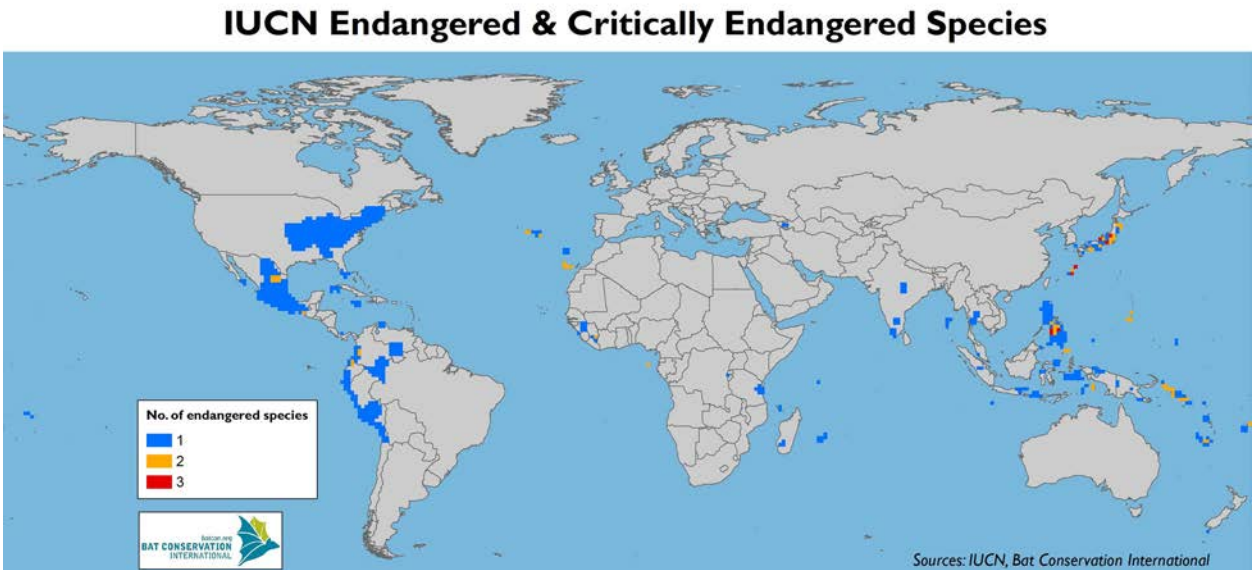
Bats are important in other ways. Their echolocation system has been incorporated into devices that improve mobility for the visually impaired. An anti-coagulant enzyme in the saliva of vampire bats has been used to increase blood flow in stroke patients. Bats rank among the most long-lived animals for their size and hold significant research potential for understanding the genetic basis of aging in humans.

Global Bat Species Richness



Bats are challenging to study, and relatively little is known about many species' life cycles, ecology, distribution, foraging ranges, migratory routes and population trends. Most adult females reproduce once per year and have a single pup, making bat populations especially vulnerable to the death of adults of breeding age. It's often difficult to spot significant declines in species until their situation is dire.

The IUCN, working with data collected by BCI and other researchers around the world, lists 26 bat species as Critically Endangered with an extreme risk of extinction and 52 others as Endangered with a very high risk of extinction. Another 94 bat species are considered Vulnerable, and as a gauge to the urgent need for additional bat research, another 203 bat species are listed as "data deficient" -- there is simply too little information to determine these species' conservation status.



The IUCN has identified 78 species of bats as Endangered or Critically Endangered and another 203 species as being of unknown conservation status.

Global Threats to Bats

Bats face wide-ranging threats around the world: foremost is habitat degradation and loss from a variety of human activities. Other threats include indiscriminant killing based on superstitions or fears of disease; uncontrolled hunting of bats for food and folk medicine; wind turbine-caused mortality; and improper mining of bat guano for fertilizer. Climate change threatens to disrupt biological life cycles of the plants and insects on which bats depend and degrade the suitability of roost sites and availability of water.

Invasive non-native species also pose severe threats. It is widely believed that as many as 25 of the 47 U.S. and Canadian bat species may be vulnerable when hibernating to the introduced fungus *Pseudogymnoascus destructans*, the cause of White-nose Syndrome, which by some estimates has killed more than seven million bats since 2006 in central and eastern North America. Hibernating bats in Latin America and Africa also could be vulnerable. Island-based bats, by virtue of their isolated evolution and limited geographic range, are particularly vulnerable to introduced species such as the Brown Tree Snake (*Boiga irregularis*) on islands including Guam, Yellow Crazy Ants (*Anoplolepis gracilipes*) or the feral Pigs (*Sus scrofa*) and Goats (*Capra hircus*) that degrade forest habitats.

III: Using Science to Drive Conservation

The need for sound scientific information to drive bat conservation and counter widespread threats is considerable. With the conservation status of nearly one in five species of bat currently unknown, there is significant need for basic inventories of bats and much better information about their ranges and habitat requirements. Outside of the Western Hemisphere particularly, IUCN Red List of Threatened Species data often relies on expert opinion; it's quite possible many more species are threatened than are currently known.

BCI will rely on IUCN designations when prioritizing species for action, but we will also draw from other data bases and determinations of rarity, such as those maintained by NatureServe, the MER index used in Mexico and other Central America countries, and the MEGA and SUMIN indices used in Bolivia and Argentina. BCI will also prioritize species based on real-time information of fast-developing threats and opportunities.

BCI will work with Washington DC-based NatureServe to create the world's first comprehensive database for bat species occurrence and other field data. BCI will act as a Conservation Data Center for bats, the first organized under NatureServe for a specific taxon, and work with other databases, conservation groups, researchers and scientific networks to populate the database. Over time, it will become a powerful tool for prioritizing conservation, making land-use decisions, and detecting early declines in populations.

The global bat database will help identify major gaps in our knowledge of priority bat species, which BCI will work with partners to fill via its Global Grassroots Grants program, rapid ecological assessments and other strategies.

BCI will also work to fill gaps in technology, working with a diverse group of stakeholders to perfect acoustic deterrents to minimize bat mortality at wind energy facilities. There is also considerable need for lighter, more powerful GPS transmitters to track smaller bats across large distances and for longer periods of time. BCI will work with partners to perfect the use of LIDAR or other technologies to count large numbers of bats accurately without intruding into hibernacula or maternity roosts. Cave and mine gating itself is a technology being continually refined. BCI also needs better data on the water needs of bats in arid and semi-arid lands so we can better measure the efficacy of BCI and others' water restoration efforts. BCI will also work with nonprofit and for-profit partners to develop consumer-friendly bat detection and identification devices to popularize bat watching and advance citizen science for bats.

One of the most pressing scientific needs is for a solution to devastating White-nose Syndrome, which has killed more than seven million North American bats since 2006. Relatively little research has explored attacking the fungus or inoculating bats, but that is beginning to change, due in part to BCI's efforts, which we must continue.

There is also a compelling need for BCI to have a prominent voice in the bats and human health debate. Bats have been established as hosts for lyssaviruses, SARS coronavirus, Marburg virus and other serious disease organisms, although the efficacy and path of transmission from bats to humans for some of these pathogens is uncertain. BCI must be a voice of moderation in this debate, spurring research on the most pressing bat and human health issues and arguing for practical, affordable means to safeguard bat habitats, minimize bat-human interactions and avoid the indiscriminant killing of bats as pests. This includes highlighting the best way to prevent emerging infectious diseases by protecting habitat and working to stop wildlife exploitation, without which pathogens would not be transmitted zoonotically to humans.

It will be equally critical for BCI and its partners to better document and publicize the profound ecosystem services bats provide. We must ensure government agencies and the public at large understand the immense ecological and economic value of bats as pollinators, seed dispersers and insect eaters. Surprisingly, few studies quantifying ecosystem services have been conducted, and BCI must spark such research and use it to drive conservation of the world's most endangered bat species and Significant Bat Areas.

Science Goals

Science Goal 1: Determine the Status and Needs of Bats

To prioritize its conservation agenda and prevent further extinctions, BCI will spur research on the location and distribution, population size, habitat needs, ecology and threats facing world's most threatened, rare and "data-deficient" bats, providing an increasingly detailed understanding of their habitat needs, distribution, ecology and population status. BCI will partner with NatureServe and others to capture this information in a new global bat database that serves increasingly as a definitive resource for scientists, conservation groups, multinational agencies, governments and corporations when setting conservation priorities and making land-use decisions.

Science Goal 2: Identify Significant Bat Areas

Protection of roosts, hibernacula or maternity caves is not sufficient to guarantee the lasting conservation of bats. BCI and its partners must also protect species' essential habitat, based on each species' ecology, foraging ranges, migratory routes and other considerations. Borrowing the concept pioneered by the Latin American Bat Conservation Network (RELCOM), BCI will work with RELCOM, the IUCN, NatureServe and other organizations and networks to identify and begin protecting the world's most Significant Bat Areas (SBAs), beginning with an initial list of 90 to 100 high-priority areas. SBAs will be chosen and prioritized based on threat of extinction, presence of mega-populations or concentrations of specific species, and areas of high bat species diversity.

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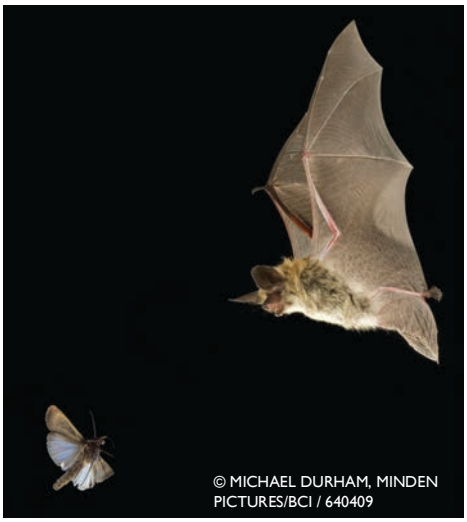
Science Goal 3: Document the Practical Value of Bats

BCI will promote and stimulate research on the ecological, economic and other ecosystem services provided by bats to better document and increase global understanding and appreciation of the important roles bats play in agriculture, forestry and temperate and tropical ecosystems. BCI will use this information to argue for the protection of bats and their habitats at Significant Bat Areas throughout the world.

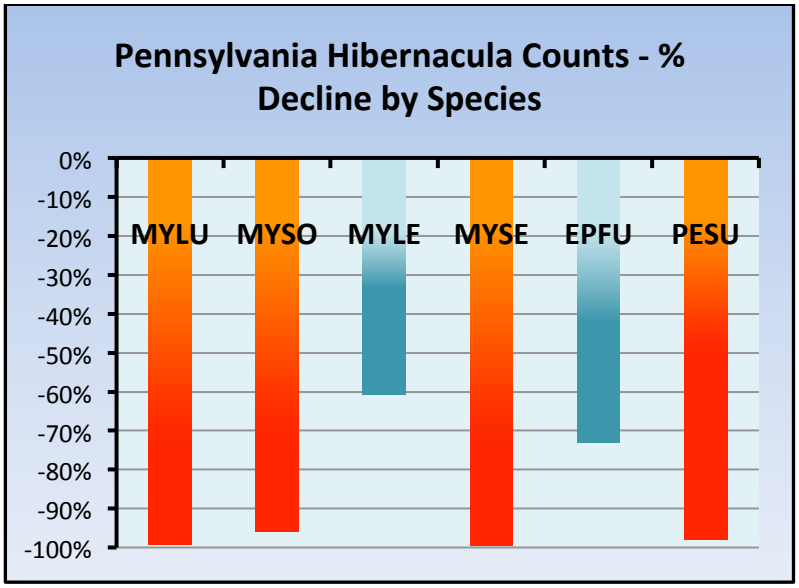


Science Goal 4: Bring Balance to the Bats and Human Health Issue

BCI will synthesize the most current and reliable scientific information on bats and human health, developing a comprehensive, periodically updated "One Health" white paper that provides BCI, local communities, health agencies and others with definitive information and guidelines for protecting human health while ensuring the long-term survival of the world's bats and their habitats. BCI will promote scientific research into the interface between humans and bats that seeks strategies for reducing risks to both human and bat populations.

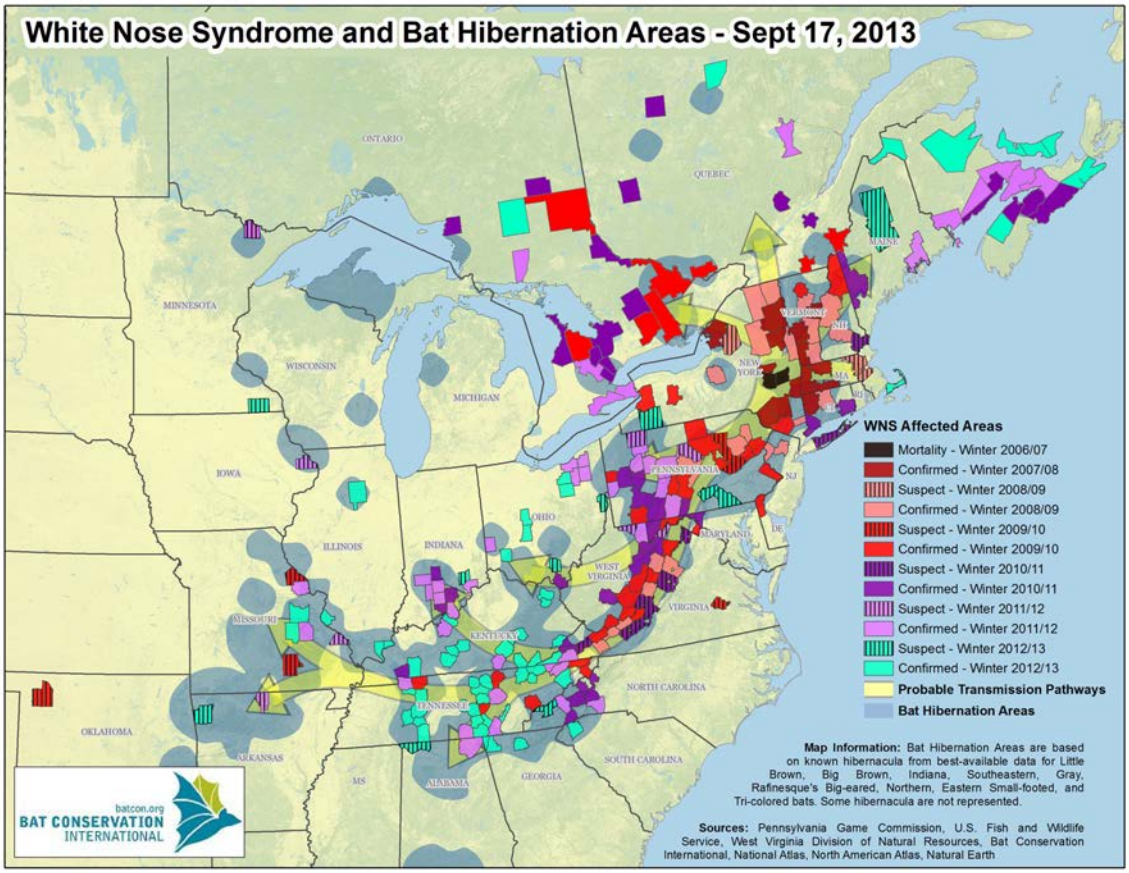
Science Goal 5: Identify and Minimize Critical Threats

BCI and its partners will detect and respond rapidly to critical, often broad-scale threats to bats. Including non-native invasive species like the fungus, *Pseudogymnoascus destructans,* that causes White-nose Syndrome in multiple species of North American bats.



Key: MYLU: *Myotis lucifugus* (Little Brown Bat); MYSO: *Myotis sodalist* (Indiana Bat); MYLE: *Myotis leibii* (Eastern Small-Footed Myotis); MYSE: *Myotis septentrionalis* (Northern Long-Eared Myotis); EPFU: *Eptesicus fuscus* (Big Brown Bat); PESU: *Perimyotis subflavus* (Eastern Pipistrelle).

WNS has caused the virtual extirpation of four once-common species of hibernating bats in Pennsylvania, including the Little Brown and Big Brown Bat, while pushing the federally endangered Indiana Bat closer to extinction. Pennsylvania demonstrates the potential severity of the disease throughout the eastern half of North America.



White-nose Syndrome has spread quickly with devastating results since its 2006 discovery in a New York tourist cave.

Science Goal 6: Develop a Science-Based Response to Accelerating Climate Change

BCI will promote and stimulate research to determine the likely impacts of climate change on bats, especially priority species and their habitats. BCI and its partners will develop science-based adaption strategies for enhancing the resiliency of bats and their habitats as the effects of climate change accelerate.

Science Goal 7: Developing Breakthrough Technologies & Methodologies

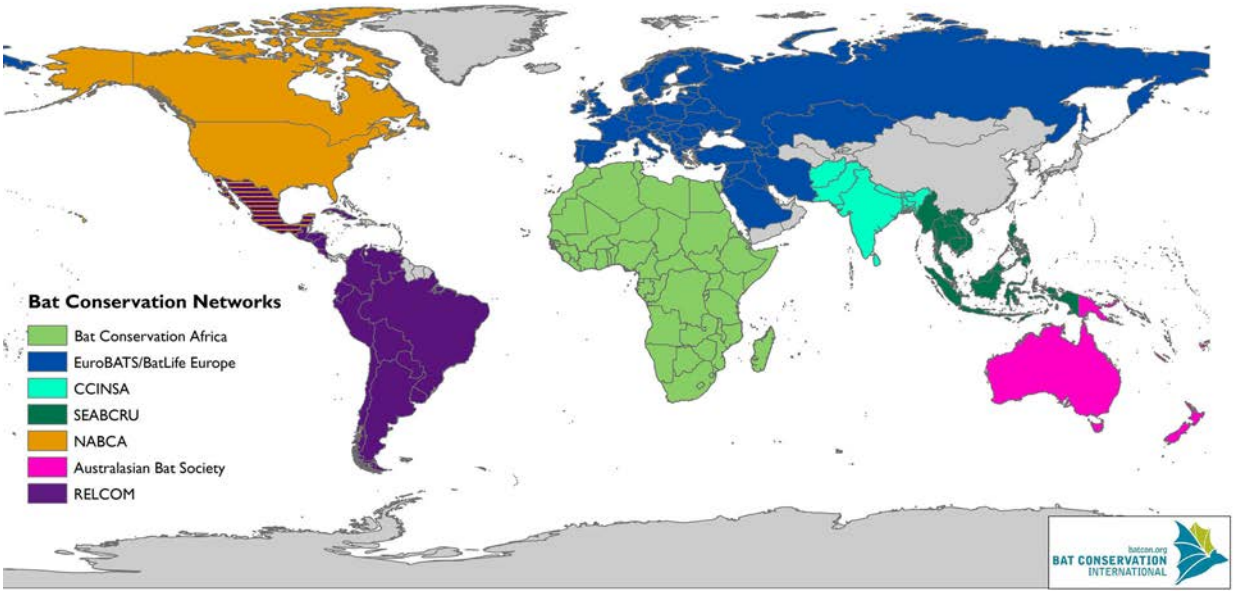
BCI will spur the development, application and integration of new technologies and methodologies that alleviate serious threats to bats or substantially improve study or public appreciation of bats. These include acoustic deterrents, captive breeding of insectivorous bats, tracking micro-bats across migratory ranges, helping build a complete DNA data base for all 1,300 bat species and helping perfect and promote consumer-friendly bat detection and identification devices.

IV: Taking Action at a Global Scale

BCI is committed to protecting the world's 1,300+ species of bats. Our earliest bat conservation efforts focused on protecting specific colonies of bats and abating threats at known roost sites. We helped to protect many notable bat colonies around the world in this fashion -- the Mexican Free-Tailed Bats, *Tadarida brasiliensis,* found under the Congress Avenue Bridge in Austin, Texas and at Bracken Bat Cave in the Texas Hill Country; a significant Gray Bat, *Myotis grisescens,* colony in Fern Cave, Alabama; and the world's largest known colony of Geoffroy's Rousette Fruit Bats, *Rousettus amplexicaudatus*, in the Monfort Bat Cave, Philippines, and the National Park of American Samoa -- to name a few. Many of our early strategies relied primarily on acquiring, gating caves and mines to prevent disturbance of important bat colonies.

Bats, however, are highly mobile and have complex life histories and varied habitat requirements. Some species require mature forests that provide roosts in tree cavities and under bark; other species, like the African Straw-Colored Fruit Bat, *Eidolon helvum,* may travel each night up to 70 kilometers in one direction to visit a favorite stand of tropical fruit trees. Many species migrate, requiring conservation of critical roosting, foraging and watering habitats along their migratory routes, which can cover hundreds or thousands of miles. Effective conservation must therefore take into account each species' unique and often complex roosting habitat requirements and the broader home ranges in which they forage and migrate. Many threats to bats also are widely distributed across the landscape. To conserve bat species effectively, BCI must work at a landscape, and in the case of migratory bats, hemispheric level.

Bat Research & Conservation Networks



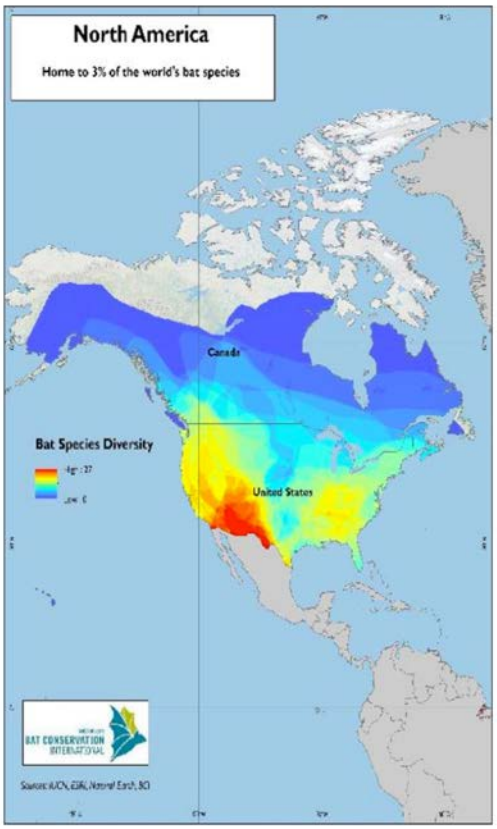
Much of the world is covered by one or more networks dedicated to studying bats and advocating for their conservation. BCI will work with these networks to increase significantly on-the-ground conservation of bat species and Significant Bat Areas.

BCI is committed to its global mission and will focus its work over the next five years in the United States and Canada, Latin America and the Caribbean, Africa, and Asia-Pacific.

The United States & Canada

The United States and Canada are home to three percent of the world's bat species. While diversity is lower here than in other regions, the 47 species found here include one species listed as Critically Endangered and two as Endangered on the IUCN Red List of Threatened Species. At least five other U. S. and Canada species are in sharp decline from White-nose Syndrome. Other threats believed to be having severe, long-term impacts on bats include the loss of suitable cave, mine and mature tree roosts; shrinking water resources in the desert Southwest; and rapid expansion of wind power, which is estimated to kill more than 200,000, mainly migratory tree-and cave-roosting bats annually in the United States and Canada.

BCI is working with industry partners to study bat mortality caused by wind turbines and perfect acoustic deterrents and operational best practices to minimize bat mortality at wind energy facilities.



Latin America & the Caribbean

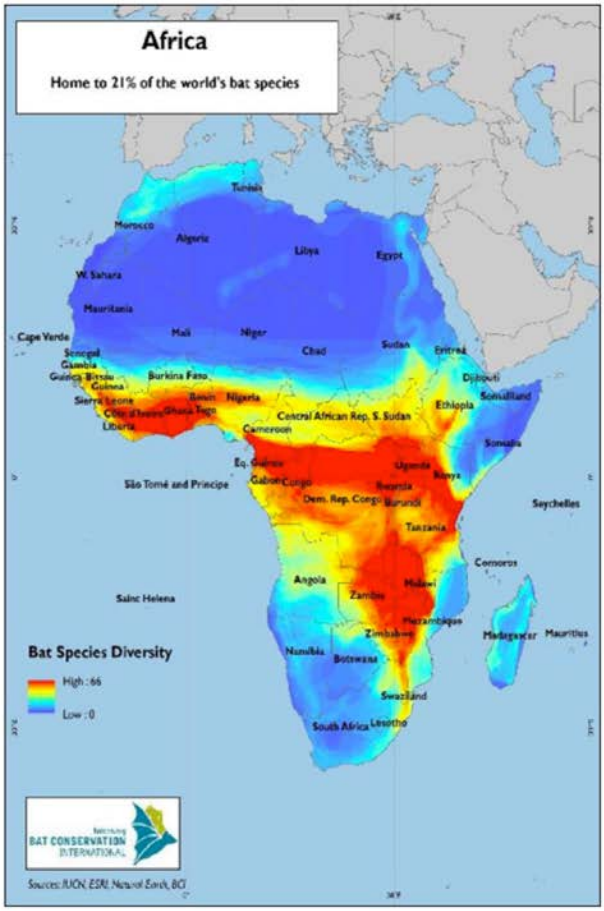
Latin America is home to world's greatest number of bat-related groups and networks, led by RELCOM, which offers multiple opportunities for creating effective conservation partnerships.
--And for good reason: Latin America and the Caribbean are home to at least 345 bat species, or 26 percent of the world's species of bats, led by Colombia with 175 species. Sixty-five of the region's species are listed as Near-Threatened, Vulnerable, Endangered or Critically Endangered on the IUCN Red List of Threatened Species; partners within Latin America place the number of threatened species even higher. Continued deforestation, mining, and the disturbance of cave and mine roosts are principal threats, as may be the loss of important water resources in arid and semi-arid portions of Latin America. Because of the presence of three species of bats that feed on the blood of livestock, one of which will also feed on the blood of people, persecution of bats in Latin America is widespread. Finally, wind energy development, a renewable energy resource that has killed hundreds of thousands of bats in North America and Europe, is expected to expand rapidly throughout Latin America over coming decades.

BCI will partner with RELCOM and other organizations to protect important bat areas and sites throughout Latin America and the Caribbean.

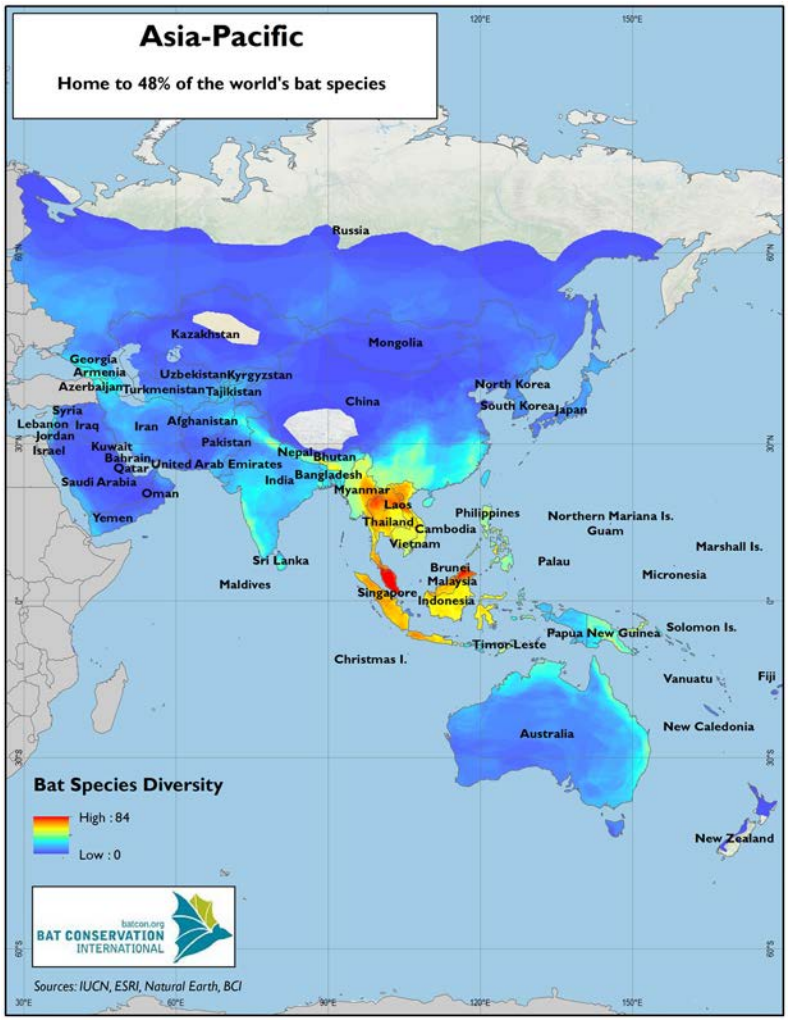
Africa

Africa and its neighboring islands are home to at least 269 bat species, or 21 percent of the world's species, led by the Democratic Republic of the Congo with 119 species. The IUCN Red List of Threatened Species classifies 45 African species as Near-Threatened, Vulnerable, Endangered or Critically Endangered. Bats in Africa face challenges not unlike those elsewhere -- loss of roosting and foraging habitat from the conversion of natural lands by logging, agriculture, mining and major infrastructure projects, and loss of open water in the Sahel and other arid and semi-arid regions experiencing encroaching desertification due to overgrazing and climate change. The hunting of bats for bushmeat is another widespread threat to bats in Africa.

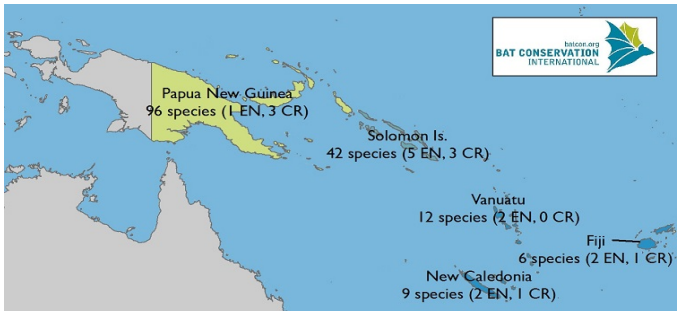
Catching bats with mist nets in east Africa. A new generation of scientists studying bats is adding to our knowledge of Africa's bats and the threats they face from habitat loss and other stresses.



Asia – Pacific



Asia-Pacific is home to 48 percent of the world's bats, led by Indonesia with 219 species. The IUCN Red List of Threatened Species classifies 146 Asia-Pacific species as Near-Threatened, Vulnerable, Endangered or Critically Endangered. The world's most recent known bat species extinction, the Christmas Island Pipistrelle, was from this region. Bats in Asia-Pacific face multiple challenges -- loss of roosting and foraging habitat from the conversion of natural lands by logging (Southeast Asia has some of the least sustainable timber practices in the world), oil palm plantations and other large-scale agriculture, mining and major infrastructure projects. Other threats include bushmeat hunting, and indiscriminate killing of bats due to fear of disease. Wind energy development is a growing threat in Asia and the Pacific; China has the world's greatest wind energy capacity at 62 gigawatts and India at 16 gigawatts is 6th. For bats confined to Pacific islands, the introduction of invasive species, like the Brown Tree Snake and Crazy Yellow Ants, presents a serious threat of extinction.

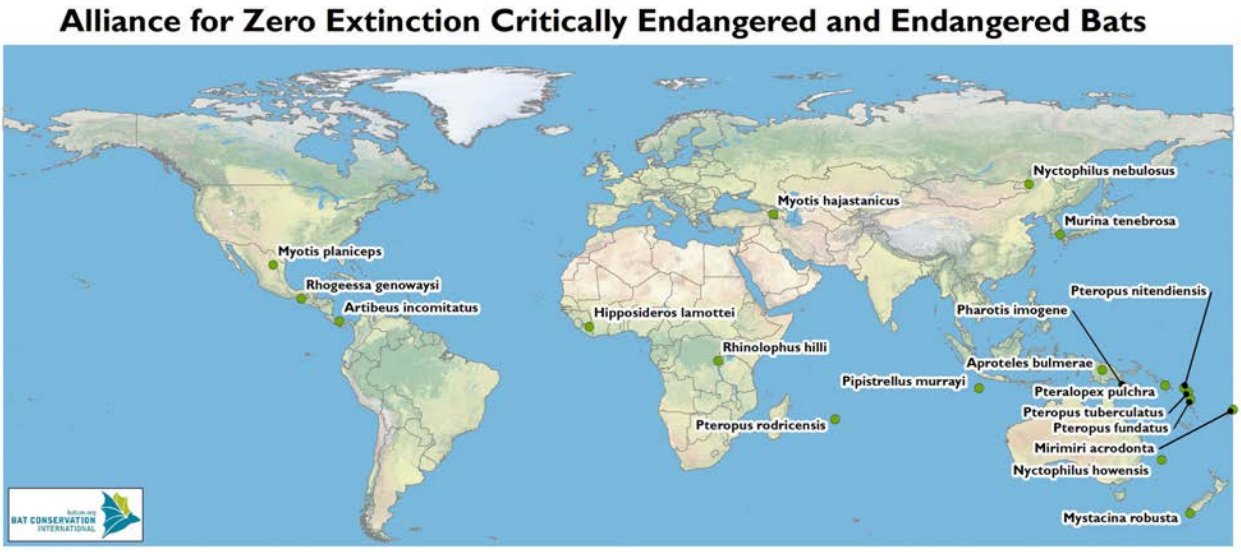


Papua New Guinea and the Solomon Islands possess the Pacific's highest diversity of bat species (138), including 12 species identified as Critically Endangered and Endangered on the IUCN Red List of Threatened Species.

Global Conservation Goals

Global Conservation Goal 1: Prevent Extinctions

BCI will work with partners to prevent the extinction of all species of bats, focusing initially on species listed by as Critically Endangered or Endangered on the IUCN Red List of Threatened Species, which includes all of the bat species appearing on the Alliance for Zero Extinction's list of species in imminent danger of disappearing.



Nineteen species of bats qualify as Alliance for Zero Extinction species, as they are known from only one place on Earth, and are recognized on the IUCN Red List as Endangered or Critically Endangered.

Global Conservation Goal 2: Protect Significant Bat Areas

In collaboration with a wide array of partners, BCI will begin protecting Significant Bat Areas (SBAs) in North America, Latin America & the Caribbean, Africa and Asia-Pacific. Our SBA site conservation plans will address the lasting protection and management of critical species and their essential habitats and the abatement of serious threats, seeking breakthrough conservation strategies that can be applied at scale across multiple SBA's. BCI will develop science-based conservation action plans for 150 SBA's and have protected viable populations of priority bat species at 50 SBAs by 2025

BCI will use the following definitions refined from Key Biodiversity Area definitions to identify Significant Bat Areas:

1. **Prevent Extinctions of Globally Threatened Bats**, especially those listed as Endangered or Critically Endangered by The International Union for the Conservation of Nature.

2. **Preserve Mega-Populations of Micro-bats and Mega-bats**, including areas containing a high percentage of the total population of individual bat species (major hibernacula, roosting colonies, migratory concentrations, etc.).

3. **Geographically Restricted Bats**, including species with ranges that are permanently or periodically geographically restricted.

4. **Protect Areas with Highly Diverse Intact Bat Communities**, especially within biogeographic regions of relatively intact contiguous areas of habitat.

Networks like Bat Conservation Africa are invaluable to providing local scientists with the resources and peer support they need for effective study and conservation of bats.

Global Conservation Goal 3: Build Conservation Capacity

BCI will work with partners around the world to strengthen conservation knowledge while fostering greater communication and collaboration among the world's many bat networks, ultimately forming a unified global network covering all continents where bats occur. BCI will expand its support of promising young scientists and conservationists to foster the next generation of leadership for bats.

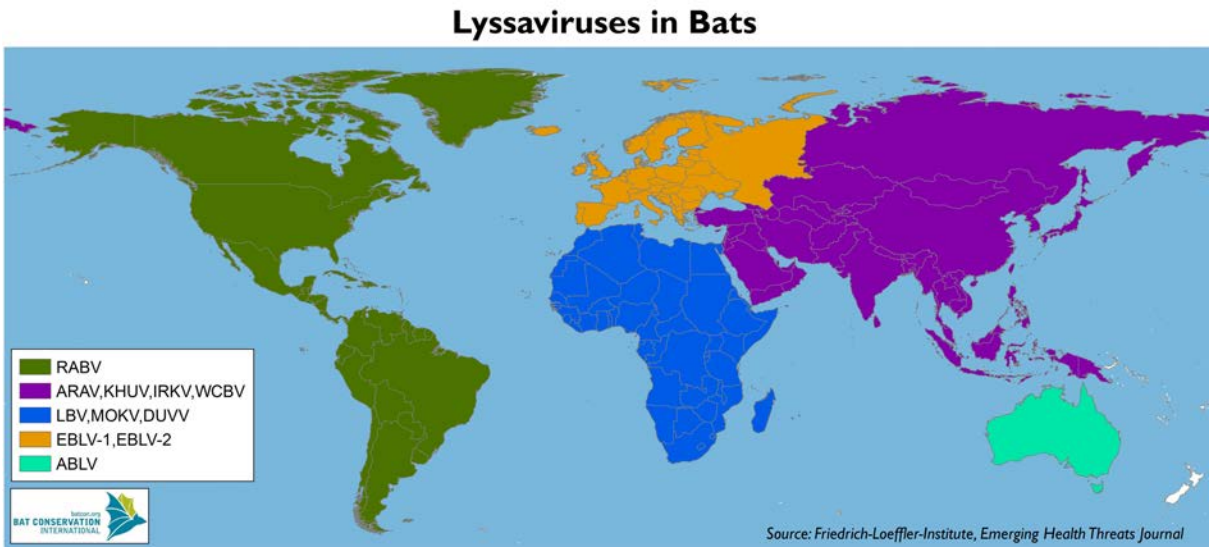
Global Conservation Goal 4: Foster Bat-Compatible Infrastructure

BCI will pursue partnerships with the World Bank and other multinational institutions, government agencies, and corporations to incorporate the conservation of bats into the funding, siting, design and management of major infrastructure development and resource extraction projects that impact bat species or Significant Bat Areas or provide an important at-scale opportunity to influence development at multiple sites or throughout an industry. Beginning in the United States and Canada, BCI will work with the wind energy industry, for example, to develop LEED-like standards for minimizing bat kills at wind turbine facilities.

The rapid development of parts of Africa, Asia and Latin America make it essential for BCI to engage with The World Bank and other country and multinational agencies funding major infrastructure development and natural resource extraction.

Global Conservation Goal 5: Promote a Balanced Approach to Bats and Human Health

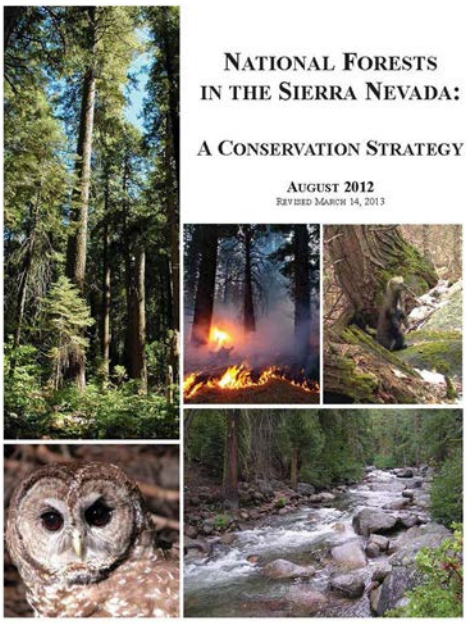
BCI will address at both a local (SBA) and societal scale the human health issues and related concerns ("nuisance" bats in buildings, etc.) that lead to unnecessary killing or removal of bats, developing and helping implement recommendations that minimize the potential for bat-human contact, and ensuring the use of best practices in bat conservation and management when human health issues are perceived to be present.



Research has identified bats as hosts of several serious zoonotic diseases, though bats' role in transmission to human populations is open to debate. BCI must become an influential, balanced voice in this issue.

Global Conservation Goal 6: Protect Bats on Public Lands

To take its work further to scale, BCI will work with the primary agencies responsible for natural resource management on public lands, beginning in North America with the Bureau of Land Management, U. S. Forest Service, National Park Service, the Department of Defense and their Canadian counterparts. BCI will seek to incorporate bat conservation into key land management plans as each public lands plan comes up for revision. BCI will adapt this strategy to other countries and use bat conservation and management to help drive the creation of new public parks and preserves in those countries.



V: Creating the Conservation Framework

Throughout much of the world, bats, unlike many other mammals and birds, have relatively few legal protections. In India, Trinidad and Tobago and other countries, bats are considered pests under the law.

As tragic as it is, White-nose Syndrome has brought the fragility and ecological and economic importance of bats to wider public attention in the United States, Canada and elsewhere. U. S. federal funding for WNS research has steadily increased, despite broad government cutbacks in other programs. The global surge of wind facilities and research into wildlife as vectors of human disease is also bringing bats to the fore in public policy debates around the world.

BCI will significantly expand its policy and legislative work by working closely with industry and governments at all levels to provide the voluntary, regulatory and legal protections bats require. We will work with the large international conservation and development organizations to incorporate bat conservation into their planning and programs and collaborate with partners to draft and help pass legislation and regulations that better protect bats in the United States and other countries in which we work. We will advocate for public funding of high-leverage research addressing important conservation questions. Longer term, BCI will seek passage of legislation that provides broad protections to bats, much as exists for migratory birds throughout the world.

BCI is committed to preventing further extinctions of bats. The lack of effective international action recently led to the apparent extinction of Australia's Christmas Island Pipistrelle, Pipistrellus murrayi.

BCI will also form **public-private partnerships** to foster voluntary adoption of best practices in bat conservation and management by private individuals and companies. These will include developing a set of LEED-like standards for minimizing bat mortality at wind farms and working with state and federal agencies and the wind industry to create incentives for broad adoption of such standards.

Research conducted by BCI has demonstrated that bat mortality at U.S. and Canada wind facilities can be substantially reduced with little loss of energy output. Getting the industry to adopt such practices will be a high priority under this five-year Plan.

In all of its policy and legislative work, BCI will address issues with a science-based, non-confrontational and collaborative style. BCI will not endorse any candidate or political party for public office.

Policy Goals

Policy Goal 1: Advocate for Bats as a Global Conservation Priority

To prevent bat species extinctions and conserve Significant Bat Areas, BCI will elevate the status of bats in the land-use decision-making and conservation planning of public agencies, international and local NGOs, development organizations, corporations and others. When necessary, BCI will work with partners in key countries to create the legal and regulatory framework needed to achieve effective conservation.

Policy Goal 2: Fund International Conservation Work

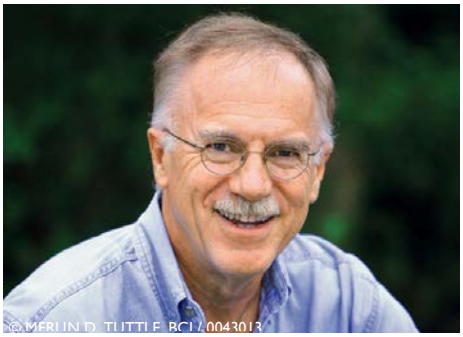
BCI will work closely with U. S. federal agencies and other country government agencies to establish a policy framework that provides long-term funding for the protection of Significant Bat Areas and bat species in Latin America, Asia-Pacific and Africa.

Policy Goal 3: Develop and Promote a "One Health" Initiative for Bats

BCI will seek wide adoption of the information and recommendations of its planned "One Health" white paper on bats and human health that recognizes bats' importance to human wellbeing and ecosystem function and argues for maintaining natural buffers between humans and bats. We will work with government agencies around the world to influence policies which promote natural buffers that limit bat and human interactions, and establish laws and educational programs that discourage handling, hunting and persecution of bats.

Policy Goal 4: Create the International Policy Framework for Bat Conservation

BCI will work long-term to establish broad international legal protections for bats, much as birds have enjoyed for the past 100 years. As a step toward this, BCI will begin participating in major international conferences, like the U.N. Framework Convention on Climate Change Council of the Parties (COP) to advocate on behalf of bats and the ecosystem services they provide in discussions of climate and food and water security.



To bring international attention to the plight and importance of bats, the UNEP Convention on the Conservation of Migratory Species of Wild Animals (CMS), EUROBATS and other organizations declared 2011 – 2012 "The Year of the Bat." BCI Founder Dr. Merlin Tuttle served as international Honorary Ambassador.

VI: Building Capacity through Education and Training

Scientists and conservationists widely recognize that lasting conservation of the world's bats and their habitats requires significant education of the public and elected officials. Many of the stresses on bats – fear-based killing, uncontrolled hunting, roost disturbance or vandalism, the conversion of natural lands and improper guano mining -- display a lack of understanding of bats' habitat needs and provision of ecosystem services. BCI will focus its education and training programs on protecting Significant Bat Areas, working closely with local communities, schools and grassroots organizations to provide the education and training needed to create local conservation capacity and to help communities value and conserve their bats.

EDUCATION AND TRAINING GOALS

Education & Training Goal 1: Generate Local Support for Protecting Significant Bat Areas.

BCI and its partners will create local support for Significant Bat Areas by providing local NGOs, schools, civic leaders and public officials with the educational resources and training needed to end or reduce harmful practices and foster a lasting sense of community pride in the protection of the SBA and its bats. Where appropriate, BCI will work with local communities to create an economic incentive for protection and conservation management of bats via ecotourism, compatible guano harvesting and other endeavors.

Education & Training Goal 2: Invest in New Scientists & Conservationists

BCI will increase its commitment to helping educate the next generation of bat scientists and conservationists via its Student Research and Workshop Scholarships. The majority of these scholarships and grants will be closely aligned with our conservation priorities.

Education & Training Goal 3: Increase Conservation Capacity

BCI's Field Training Workshops will be closely tied to the conservation of Significant Bat Areas, delivering key training to targeted audiences to enhance their capacity to lead local conservation initiatives.

VII: Marketing as a Conservation Strategy

BCI will use a "top-down, bottom-up" approach to significantly increase the positive profile of bats, drawing attention to their importance, susceptibility to mounting environmental pressures and the role BCI is playing in their lasting survival. BCI will focus its marketing in North America and several other regions on high-leverage strategies attracting the attention of millions of people through skillful use of traditional mass media and social media. BCI will "own" Halloween by establishing itself as *the* nonprofit organization associated with the holiday, using the month of October to raise public awareness and appreciation of bats and increase grassroots financial support of BCI and its conservation goals. This strategy should work in a number of regions, including in Latin America, where RELCOM in 2009 established October as The Month of the Bat, October being the bat month under Mayan beliefs.

For many threatened species and SBAs, BCI and its partners will focus locally, working with schools, civic leaders, community groups, local officials and others on increasing community support for the lasting protection and management of bats in their area.

Marketing & Media Goals

Marketing Goal 1: Create a Global Bat Conservation Ethic

As part of a long-range effort to raise public awareness and appreciation of bats around the world, BCI will conduct a series of strategic campaigns in the United States and around the world to raise substantial new public awareness, appreciation and support of bat conservation. BCI will use a full array of marketing partnerships and other strategies for capturing the public imagination.

Marketing Goal 2: Support Philanthropy & Membership

BCI will develop strong, consistent marketing programs that promote membership and monthly, annual, planned, and special campaign giving by BCI members and the public at large.

Marketing Goal 3: Make Strategic Use of Social Media

BCI will become an innovator in the use of social media to promote its mission and achieve its goals around the world. Social media will form the basis of our grassroots advocacy, membership, marketing, fund raising and media campaigns, and as a way of sharing important conservation information.

VIII: Building an Engaged Membership

Bat Conservation International's members have been essential to our success, serving as advocates and volunteers and providing outstanding financial support. BCI will build upon this strength, tripling our membership over the next five years via traditional and social media strategies. Growing and maintaining a larger membership will require sustained financial support, but the return on investment in increased political influence, talent and financial support and as a strategy for increasing public awareness and appreciation of bats will more than justify the investment. The 13,300 petition signatures gathered in May 2013 in two weeks from 80 countries in support of Bracken Cave Preserve speak to our potential.

Membership Goals

Membership Goal 1: Grow BCI Membership

BCI will double the size of its membership to more than 20,000 supporters via the web and traditional methods. BCI will redouble its outreach to these members, engaging them as monthly, mid-sized and major donors, building the annual and planned giving programs in the process.

Membership Goal 2: Build a Dynamic Volunteer Program

Volunteers save BCI thousands of dollars annually and bring backgrounds and skills that BCI often does not possess, and provides an opportunity for volunteers to advance bat conservation. BCI will build a professionally run Volunteer Program to substantially increase the strategic use of volunteers throughout the organization.

IX: Inspiring Private and Public Financial Support

To take bat conservation to a global scale, Bat Conservation International must substantially expand the financial resources available to it and its partners. BCI must build an outstanding major and principal gifts program as well as a consistent legacy and gift planning program that provides a significant annual stream of planned gifts. BCI will also significantly expand *public* financial support for bat conservation, working with existing and many new partners within and outside the United States.

Philanthropy Goals

Philanthropy Goal 1: Increase Major and Principal Gifts

BCI will build an effective principal ($1 million+) and major ($10,000+) outright gifts program based on strategic and consistent identification, cultivation, solicitation and stewardship of prospective individual, foundation and corporate donors in the United States and elsewhere.

Philanthropy Goal 2: Establish a Strong Gift and Legacy Planning Program

BCI will build a strong and consistent planned giving program through its Legacy Society and other marketing means that annually provides significant revenues for BCI's endowments and other needs.

Philanthropy Goal 3: Increase Public Funding

BCI will substantially increase public funds from the United States and other governments, with a strong focus on international aid agencies and multinational institutions, to advance BCI and our partners' global conservation goals.

Philanthropy Goal 4: Partner with the Private Sector

BCI will build a strong business membership that enhances our public recognition and credibility, political influence, funding and the ability to achieve on-the-ground conservation around the world.

Section X: Investing in BCI's Organizational Capacity

Bat Conservation International's 30-year record of conservation impact has been achieved through the dedication of its staff, volunteers and supporters. During the next five years, BCI will begin the transition from a U. S. organization with some international projects to a truly global organization, diversifying its Board of Directors and workforce, staying abreast of and conforming to the laws and regulations of the countries in which BCI works. BCI will invest in its staff and volunteers, providing increased training and other resources to help ensure each staff and Board member excel in their work. We will ensure we maintain the highest quality web presence, translated into an increasing number of languages, and provide our decentralized staff with the means to operate and communicate effectively despite the physical distances separating them.

Capacity Goal 1: Create a Global Organization Dedicated to Excellence

BCI will invest in its operational framework, ensuring it has the administrative, financial, human resources, information technology and legal expertise and capacity needed to recruit and support a growing, highly interactive, efficient and productive global workforce. BCI whenever possible will recruit staff and Board members from the countries and cultures in which we work and invest in the ongoing training and development of all staff and volunteers.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Conclusion

Bat Conservation International has been a leading voice for the conservation of bats for more than 30 years. To fulfill our Mission, we must increase our conservation impact many times over, stimulating and making the best possible use of new scientific information and technology. We must become a global organization, able to reach well beyond our current conservation capacity and work with many of the world's largest institutions, even as we expand our efforts at the community level, helping people and bats to coexist. Preventing bat species extinctions via the Significant Bat Area concept and other strategies will drive the great majority of our work and transform BCI into an organization able to bring substantial conservation resources and political support to bat conservation. With more than 1,300 species of bats on six continents to protect, BCI will work with multiple partners at all levels of Society to achieve its Mission. BCI is uniquely positioned to lead this global effort.

*Bracken Bat Cave in the Texas Hill Country is owned and managed by BCI and contains 10 to 15 million Mexican Free-Tailed Bats (*Tadarida brasiliensis*) making it the world's largest known colony of bats.*

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Appendix A
Priorities for Protection

as of September 28, 2013

Initial list of threatened bats, mega-populations and high bat diversity areas by country for consideration under the Significant Bat Areas initiative. This list will be updated as new information comes available. [Key to Red List Status: "Critically Endangered" (CR); "Endangered" (EN); "Near Threatened" (NT); "Least Concern" (LC).]

Country	Species	Red List Status	Alliance for Zero Extinction	Notes
Argentina	*Tadarida brasiliensis*	LC		Escaba Dam - estimated at >1 million bats
Armenia	*Myotis hajastanicus*	CR	yes	
Australia	*Nyctophilus howensis*	CR	yes	
Australia (Christmas Island)	*Pipistrellus murrayi*	CR	yes	
Brazil, Colombia, Peru	*Lonchorhina marinkellei*	EN		
Bulgaria	multiple species			Devetashkata Cave, largest hibernacula in Europe
Chile, Ecuador, Peru	*Amorphochilus schnablii*	EN		
Colombia	mutiple species			Chicamocha Canyon
Colombia, Ecuador	*Balantiopteryx infusca*	EN		
Colombia, Ecuador	*Platyrrhinus chocoensis*	EN		
Comoros	*Pteropus livingstonii*	EN	yes	
Cuba	*Natalus primus*	CR		
Fiji	*Mirimiri acrodonta*	CR	yes	
Fiji, Micronesia, United States (Northern Mariana Islands, American Samoa, Guam), Palau, Samoa	*Emballonura semicaudata*	EN		
Fiji, Vanuatu	*Tadarida bregullae*	EN		
Guam, Northern Mariana Islands	*Pteropus mariannus*	EN		
Guinea	*Hipposideros lamottei*	CR	yes	
Guinea	*Rhinolophus maclaudi*	EN		
Guinea, Liberia	*Rhinolophus ziama*	EN		
India	*Hipposideros durgadasi*	EN		
India	*Latidens salimalii*	EN		
India	*Rhinolophus cognatus*	EN		
India, Thailand	*Hipposideros halophyllus*	EN		
Indonesia	*Acerodon humilis*	EN		

Indonesia	*Neopteryx frosti*	EN		
Indonesia	*Pteropus aruensis*	CR		
Indonesia	*Pteropus melanopogon*	EN		
Indonesia	*Pteropus pohlei*	EN		
Indonesia	*Rhinolophus madurensis*	EN		
Indonesia, Malaysia	*Hipposideros orbiculus*	EN		
Indonesia, Philippines	*Nyctimene rabori*	EN		
Jamaica	*Natalus jamaicensis*	CR		
Japan	*Eptesicus japonensis*	EN		
Japan	*Miniopterus fuscus*	EN		
Japan	*Murina ryukyuana*	EN		
Japan	*Murina tenebrosa*	CR	yes	
Japan	*Myotis pruinosus*	EN		
Japan	*Myotis yanbarensis*	CR		
Japan	*Pipistrellus endoi*	EN		
Japan	*Pteropus pselaphon*	CR		
Kenya	multiple species			East Coast
Kenya	multiple species			Great Rift Valley
Madagascar	*Eptesicus malagasyensis*	EN		
Mauritius	*Pteropus rodricensis*	CR	yes	
Mauritius, France (Réunion)	*Pteropus niger*	EN		
Mexico	*Myotis findleyi*	EN		
Mexico	*Myotis peninsularis*	EN		
Mexico	*Myotis planiceps*	EN	yes	
Mexico	*Rhogeessa genowaysi*	EN	yes	
Mexico	multiple species			SW Coast of Mexico
Mexico, United States	*Leptonycteris nivalis*	EN		
Mexico, United States	multiple species			Madrean Sky Island
Micronesia	*Pteropus insularis*	CR		
New Caledonia	*Chalinolobus neocaledonicus*	EN		
New Caledonia	*Miniopterus robustior*	EN		
New Caledonia	*Nyctophilus nebulosus*	CR	yes	
New Zealand	*Mystacina robusta*	CR	yes	
Panama	*Artibeus incomitatus*	CR	yes	
Papua New Guinea	*Aproteles bulmerae*	CR	yes	
Papua New Guinea	*Pharotis imogene*	CR	yes	
Papua New Guinea, Solomon Islands	*Pteralopex anceps*	EN		
Papua New Guinea, Solomon Islands	*Pteralopex flanneryi*	CR		
Peru	*Sturnira nana*	EN		
Philippines	*Acerodon jubatus*	EN		
Philippines	*Dobsonia chapmani*	CR		

Philippines	*Rousettus amplexicaudatus*	LC		Monfort Bat Cave; world's largest colony for the species
Portugal	*Nyctalus azoreum*	EN		
Portugal, Spain	*Pipistrellus maderensis*	EN		
Rwanda	*Rhinolophus hilli*	CR		
São Tomé and Príncipe	*Myonycteris brachycephala*	EN		
São Tomé and Príncipe	*Tadarida tomensis*	EN		
SE Asia	*Tadarida plicata*	LC		mega colonies
Seychelles	*Coleura seychellensis*	CR		
Solomon Islands	*Pteralopex atrata*	EN		
Solomon Islands	*Pteralopex pulchra*	CR	yes	
Solomon Islands	*Pteralopex taki*	EN		
Solomon Islands	*Pteropus cognatus*	EN		
Solomon Islands	*Pteropus nitendiensis*	EN	yes	
Solomon Islands	*Pteropus tuberculatus*	CR	yes	
Spain	*Plecotus teneriffae*	EN		
Sub-Saharan Africa	*Eidolon helvum*	NT		Kasanka National Park; world's largest colony for the species
Tanzania	*Kerivoula africana*	EN		
United States	*Eumops floridanus*	CR		
United States	*Myotis sodalis*	EN		
United States	*Tadarida brasiliensis*	LC		Texas Hill Country - Bracken; world's largest colony of bats
Vanuatu	*Pteropus fundatus*	EN	yes	
Venezuela	*Lonchorhina fernandezi*	EN		
Venezuela	*Pteronotus paraguanensis*	CR		
Vietnam	multiple species			newly discovered; cave reported as the world's largest; flying foxes in sinkhole entrances; being opened for tourism; high profile

CRITICALLY ENDANGERED (CR) : A taxon is Critically Endangered when the best available evidence indicates it should be considered to be facing an extremely high risk of extinction in the wild, based upon detailed Criteria developed by the IUCN Red List of Threatened Species.

ENDANGERED (EN): A taxon is Endangered when the best available evidence indicates it should be considered to be facing a very high risk of extinction in the wild, based upon detailed Criteria developed by the IUCN Red List of Threatened Species.

October 2013

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