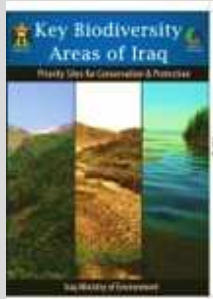


# KEY BIODIVERSITY AREAS OF IRAQ

## What is the Key Biodiversity Areas (KBA) Program?

The Key Biodiversity Areas (KBA) Program is an initiative of the Iraqi Ministry of Environment and Nature Iraq aimed at identifying, documenting and protecting a network of sites critical for the conservation of Iraq's biodiversity. The KBA Program, started in 2004, includes site-orientated research and monitoring, education, advocacy, action, management, and national and international legal protection.

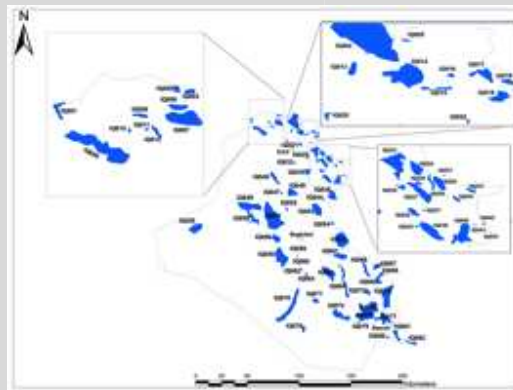


## Data for priority-setting and decision-making

Scientific data collection and analysis play a highly influential role in underpinning the conservation and management of Key Biodiversity Areas (KBAs). Useful for ornithologists, botanists, mammalogists, herpetologists, governmental agencies, civil society organizations, and a host of other conservation professionals, the data presented here are intended to guide practical management and action at KBAs and to target political and legal mechanisms to achieve the adequate protection of these locally, nationally, and globally important areas.

## A network of globally important sites

Because of a rigorous application of internationally agreed ornithological, non-avian fauna and botanical criteria, the global importance of the network of sites identified in this document is assured. Each site meets or exceeds the required, often quantitative, selection thresholds and the global standardisation of the criteria facilitates comparison between sites at local, national and regional levels. For example, these criteria are compatible with those used to designate wetlands of international importance under the Ramsar Convention.

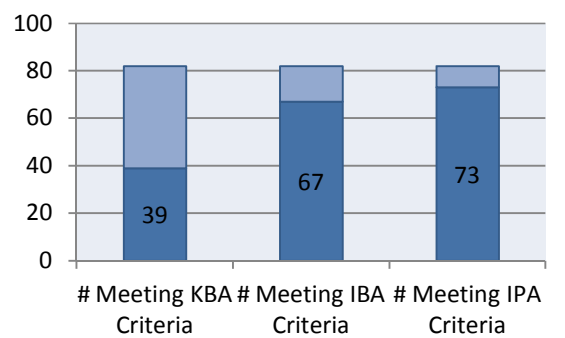


## Contributions by a network of people across the region

This inventory results from the contributions of several ornithologists, botanists, mammal experts, herpetologists, fish experts, conservation experts and other specialists from Iraq, neighbouring countries, Europe and Canada. More than 50 people have been directly involved in the collection of data and carrying out field surveys of flora and fauna since 2005, assisted by staff of BirdLife International, the Royal Botanic Garden Edinburgh/Center for Middle East Plants (RBGE/CMEP), and the Italian Ministry of Environment, Land & Sea (IMELS).

**A total of 39 KBAs (based on non-avian criteria), 67 Important Bird & Biodiversity Areas (IBAs), and 73 Important Plant Areas (IPAs) were identified covering 4.3%, 6.3%, and 5.6% of Iraq respectively**

A network of 82 sites based on these different international criteria has been identified covering 28,388 km<sup>2</sup> (6.5%) of Iraq. The effective protection and management of these sites over a relatively low percentage of the area of the country is a realistic goal that would make a significant contribution to the conservation of many bird species and other fauna and flora in Iraq.



**Sites identified under different criteria**

Eighty-two sites have been selected in Iraq based on three different criteria systems.

**Sites identified on KBA criteria for non-avian fauna**

Thirty-nine KBAs (selected for non-avian fauna) have been chosen for vulnerability criterion based on the presence of certain conservation concern species. Out of these 39 sites, 21 meet an irreplaceability criterion for the presence of the restricted range species *Rafetus euphraticus*.



**Sites identified on IBA criteria for birds**

Eight-two percent of the Important Bird & Biodiversity Areas (IBAs) were identified based on the presence of 9 threatened birds species (1 Critically Endangered, 4 Endangered, 4 Vulnerable); 42% of the IBAs in Iraq have been chosen for the assemblages of biome-restricted species that occur within them. Twenty-six of the IBA sites (39%) qualify for the waterbirds and/or terrestrial species that congregate in them in significantly large numbers.

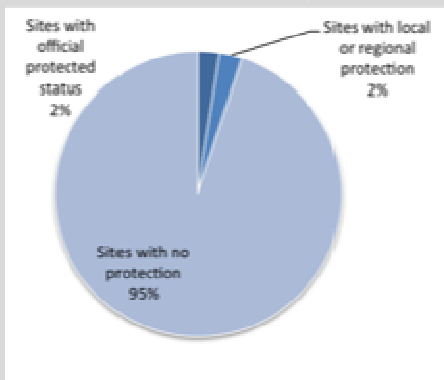


**Sites identified on IPA criteria for Plants and Habitats**

Fifty-five percent of the Important Plant Areas (IPAs) have been chosen based on the presence of national endemic, near endemic, or nationally rare species they hold. Iraq has 182 conservation concern plants (62 endemics, 64 near endemics, & 56 nationally rare species). Of these IPAs, many were identified based on historical information. In addition, 67 sites (92%) were identified based on species rich habitats with 11 (15%) of these sites also considered key refuge sites, and 17 sites (23%) identified based on three threatened habitats (Pine Forest, Riverine Forest of the Plains (Al-Ahrash) and the Mesopotamian Marshlands).

### Sites forming networks to protect species assemblages

Birdlife International defines five key biomes (or biogeographic areas) in Iraq and as far as possible, the 82 sites chosen in Iraq have been selected so that, taken together, they support the majority of the nationally recorded species associated with these biomes. This has been easiest to determine for bird species. Iraq KBA sites provide habitat for 66 characteristic bird species (73% of the total number of biome-restricted species recorded in the Middle East region as a whole). A total of 43 of these species occur regularly in Iraq with five species (*Sylvia conspicillata*, *Sylvia melanocephala*, *Pterocles lichtensteinii*, *Oenanthe leucopyga*, & *Emberiza bruniceps*) being either vagrants or of uncertain occurrence.



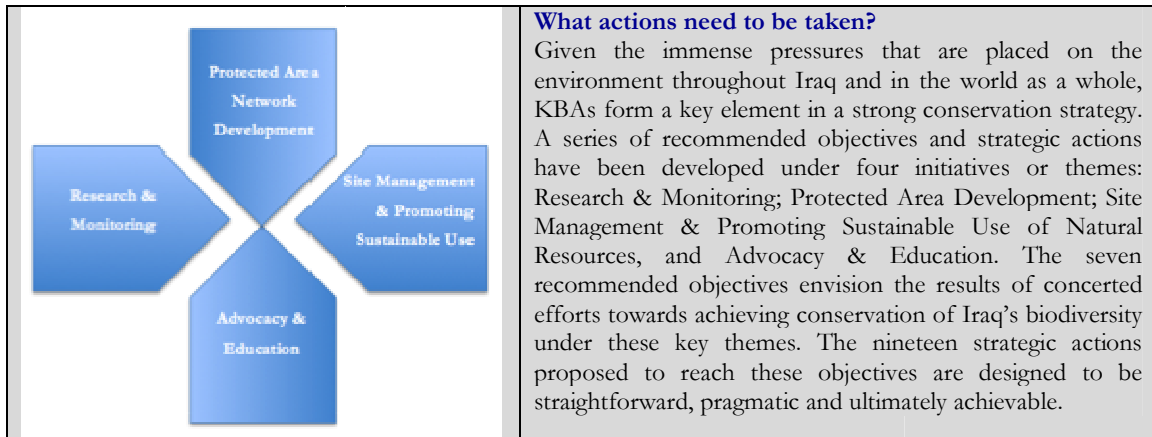
### KBAs require protection under national and international law

Internationally many countries have legal and institutional frameworks for the designation and conservation of protected areas. KBAs should be designated as protected areas under national law where appropriate. Of the 82 KBAs identified in Iraq to date, currently two (2%) are wholly or partly under some form of protection by national law, an addition two (2%) have local or regional protection but this leaves 78 sites (95%) currently unprotected. Also, despite the global importance of the KBAs identified in this publication, only one sites (the Hawizeh Marshes Site) currently benefits from recognition under a ratified global environmental agreement (The Ramsar Convention), although other sites are in the process of designation.

### KBAs in the context of the wider environment

Increasingly, many environmental problems and threats to biodiversity are regional or global in scope or origin, and cannot be addressed solely through the effective protection and management of KBAs alone. Many species live and breed at low densities in a dispersed, non-congregatory manner, and their populations therefore cannot be conserved successfully by a site-based approach alone. It is vital, therefore, that conservation of the wider environment is also pursued in addition to and in the context of, the protection of KBAs, through the integration of environmental objectives into all policy sectors.





**What actions need to be taken?**

Given the immense pressures that are placed on the environment throughout Iraq and in the world as a whole, KBAs form a key element in a strong conservation strategy. A series of recommended objectives and strategic actions have been developed under four initiatives or themes: Research & Monitoring; Protected Area Development; Site Management & Promoting Sustainable Use of Natural Resources, and Advocacy & Education. The seven recommended objectives envision the results of concerted efforts towards achieving conservation of Iraq's biodiversity under these key themes. The nineteen strategic actions proposed to reach these objectives are designed to be straightforward, pragmatic and ultimately achievable.

*The KBA Program is an initiative of the Iraqi Ministry of Environment & Nature Iraq*