**Wildlife Research Center** **Brochure**

**Introduction**

*HISTORICAL PERSPECTIVE*

The Wildlife Research Center (WRC) was founded in 1968. It was a research unit dedicated to Excellence in wildlife stewardship through science and education at the Wildlife Conservation General Administration (WCGA) and its' role was primarily restricted to plan, design and conduct preliminary wildlife field surveys to assist the (WCGA) in making appropriate wildlife conservation management decisions.

The unit joined the Ministry of Agriculture in 1975. Then was upgraded from a Research Unit to a specialized center. The center was shifted to the Agricultural Research Corporation, complying with the decision that all Ministry Research Units should be contained within the Agricultural Research Corporation.

The (WRC) was shifted again in 1995 to the Animal Resources Research Corporation (ARRC) - Ministry of Animal Resources and Fisheries. Then to the Ministry of Science and Technology in 2002 and later in June 2010 was returned to the Ministry of Animal Resources and Fisheries.

In 2018, WRCs' research staff included more than 29 professionals with expertise in all aspects of wildlife Biology, Conservation, Ecology, Natural Habitats, Wildlife Diseases, Wildlife Management, Documentation and Extension.

**VISION**

*Wildlife Research Center seeks to be recognized as a scientific research institution that sets the standard for excellence in the field of wildlife conservation.*

**MISSION**

* The mission of Wildlife Research Center is to conserve wildlife for the benefit of the present and future generations.
* Through research and education, the center is dedicated to the contribution to the fundamental and applied knowledge upon which wildlife disciplines are based in order to assist in conserving, developing wildlife resources and serve the professional community of scientists, technicians, planners, and others who work actively to study, manage, and conserve wildlife and their habitats

**CORE VALUES AND BELIEFS**

* WRC recognizes the intrinsic value of wildlife, as well as the importance of wildlife to humanity. We also realize that wildlife is a necessary component of healthy, functioning ecosystems.
* WRC believe that wildlife professionals have a duty to manage and conserve wildlife in ways that are compatible with human well-being.
* WRC values science as a necessary tool to develop effective methods and techniques in wildlife and habitat management and conservation.
* WRC values science and with its diverse capabilities, seeks to adapt science to emerging needs in the field of wildlife conservation and management.
* WRC values are committed to providing responsive services for professional development and information sharing, and networking.

**WRC DEPARTMENTS**

1. Department of Wildlife Biology.
2. Department of Natural Habitats.
3. Department Of Wildlife Diseases, wildlife Production and wildlife Breeding.
4. Department of Extension, Documentation and Information.

**WRC STATIONS**

1. Dinder Research Station.
2. Red Sea Research Station.
3. Radom Research Station.
4. Jabel Al Dair Research Station.

**INTERDISCIPLINARY RESEARCHERS**

1. Wildlife Biology { FAUNAL SPECIES (Birds, Reptiles, Amphibians, Mammals and Insects)} and {FLORA}.
2. Natural Habitats (Terrestrial, Freshwater and Marine Ecosystems).
3. Wildlife Diseases (wildlife ecological health, wildlife epidemiology and wildlife breeding).
4. Wildlife Management (migratory species, natural heritage, fair and equitable sharing of the benefits of genetic resources and wildlife crimes).

**WRC OBJECTIVES AND FUNCTIONS**

* Assess the status and trends of Sudan's biotic resources and provide to resources managers scientifically sound databases and analytical products resulting from Biological Surveys.
* Design and Conduct wildlife surveys and expeditions in all parts of Sudan for the exploration and discovering of new areas rich in wildlife or habitats that need protection in order to restore the declining species and to be declared as protected areas.
* Maintain records, monitor trends and changes in wildlife population and identify wildlife species at risk in order to determine species status /category.
* Design and Conduct surveys and applied research to preserve the natural habitats in protected areas (including National Parks, Game Reserves and Sanctuaries) to contribute to maintain their natural ecosystems balance and sustainability.
* Promote wildlife education and knowledge related to conservation and management of wildlife species and habitats.
* Promote the integration of scientific research in the field of population studies, forests, grasslands and livestock due to their direct impact on wildlife and to provide data base to assist in the management of natural resources in the protected areas.
* Design and Conduct researches in the field of wildlife production, wildlife breeding and wildlife diseases in order to provide technical packages to the investors in this field.
* Encourage the adoption of researches that will identify the economic contribution of wildlife resources and ecotourism for the enrichment of human life.
* Encourage the investment in the field of economic prospects of wildlife in the national economy in a sustainable manner.

**WRC ACTIVITIES**

1. Issue scientific publications in the field of wildlife targeting conservation and wildlife development prospects.
2. Continuous assessment and evaluation of wildlife status in conserved and non-conserved parts of Sudan.
3. Co-operate with various wildlife departments in Sudanese universities and supervise students in the field of wildlife.
4. Establish annual training courses on wildlife science and wildlife immobilization for researchers and related institutions and universities incurring experts from outside Sudan.
5. Participation in local and international nature conservation based events, seminars, conferences, workshops and exhibitions.
6. Create awareness and educational conservation based sessions at both community and institutional levels using various media.
7. Design, conduct and dissemination of national and regional analytical studies and researches to identify threats to biodiversity.

**INSTITUTIONAL RELATIONSHIPS**

* WRC has always worked closely with many entities that have wildlife management responsibility.
* WRC believes that close partnership between the center and resources management entities (Governmental or Private Sector) is essential for meeting the scientific information needed to aid raising awareness and to develop new methods and techniques for meeting challenges of managing Sudan's Biological Resources.
* WRC has good relations with many scientific institutions and governmental organizations and associations. Most notably the Sudanese universities and research centers, specialized UN agencies, International, Regional and National Organizations and Technical Consultation Committees.

**BUILDING FOR THE FUTURE**

* Wildlife Research Center focuses on gaining a better understanding of the ecological and biological needs of threatened and endangered species which can be used by land managers to develop sound management practices for sustainability.
* Dissemination of research conducted by the Center may be used to aid in the development of future wildlife management plans, practices, and policies and provides the framework for conservation and bio-diversity assessments using an ecosystem-based management approach.
* WRC will continue to maintain and invest in its data management systems to ensure that state-of –the art database management, storage and retrieval capabilities are sufficient to meet the increasing demand for information by the conservation and scientific communities.
* Develop and conduct researches of captive breeding for the restoration and re-introduction of endangered species in their natural habitats.
* Future prospects strongly will emphasize the improvement of methodologies and techniques on the long-term population monitoring programs.
* Further, integrating biodiversity and ecosystem management into holistic approaches such as One Health provides an opportunity to better assess and address wildlife disease risk and other poor health outcomes.

**WRC KEY THEMES OF THE STRATEGIC PLAN**

* Apply advanced techniques and analytical approaches in monitoring and evaluation of wildlife and their habitats.
* Emphasis will be placed on predicting ecosystems vulnerability and ecosystem responses to future changes in climate and their impact on wildlife.
* Develop research programs for the propagation of the species threatened with extinction and re-introduce them in their natural habitats.
* Review and evaluate the natural resources in the existing and proposed protected areas and contribute to their management plans and development.
* Develop scientifically based methods and techniques for understanding population trends and changes and develop tools for forecasting future conditions.
* Find proper approaches that enable wildlife prospects to contribute to the development of the national economy through extension programs.
* Expansion through the establishment and the activation of field stations in the states.
* Application of research results and recommendations through the extension department to promote the concept of natural heritage conservation and protection.
* Capacity building on various wildlife fields to support key aspects of wildlife conservation and management.
* Producing publications, field guides, taxon-based series of books, reports, fact sheets related to specific species or conservation issues and regions in an informative website that meets information needs for the flow of updated information.
* Improving livelihoods and enhancing local community organizations related to wetland management and biodiversity through participation approaches of different stakeholders and contribute to the management of Ramsar Site in Sudan.
* Identifying and prioritizing species for conservation activities based on assessments of species conservation status and population trends.
* Establishing genetic resources bank as a conservation measure approach against losses of valuable genetic diversity in animal and plant species.

**ACHIEVMENTS**

1. The WRC had conducted periodic surveys to monitor and assess wildlife resources in the Northern, River Nile, White Nile and Kassala States and Jabel Al Dair and west of Omdurman (Albaja) areas. Results were the publications of several scientific papers in local and international Journals and Periodicals.
2. The WRC carried out evaluation studies and periodic surveys in natural habitats and wildlife species population in many conserved and none conserved areas such as Dinder National Park, ever since the WRC was established and up to date.
3. The WRC has contributed to the supervision and implementation of the ecological studies of the Dinder National park for the Global Environment Fund commissioned by the Supreme Council for Environment and Natural resources (2001-2005).
4. The WRC has extracted topographic maps for the Dinder National Park natural resources using remote sensing techniques (1997-2001).
5. The WRC held the wildlife symposium in cooperation with the Arab Organization for Agricultural Development
6. The WRC has implemented a project on the impacts of fire on small mammals in the Dinder National Park, funded by UNESCO (2002).
7. The WRC has won the young scientist award of the UNESCO for the project survey of natural resources of Radom Biosphere Reserve (2001-2002).
8. Construction of the wildlife research laboratory, funded by the White Nile Petroleum Company (2010).
9. Establishment of the Geographical Information System (GIS) Unit supported by FAO.
10. Application of Ringing Technique for birds migration.
11. Conducted and prepared the scientific studies for Jebel Al Dair mountain until declared as a protected area.
12. Phase One - Red Sea Wildlife Survey (2015).
13. Opening of the Wildlife Research Center Herbarium (2015).
14. Wildlife Survey on Northern State with special reference to Nuba Lake in Wadi Halfa and Nile State ( Jebel Al Hassaniah National Park 2015).
15. First Wildlife Photographic Exhibition at the Ministry of Animal Resources (2015).
16. Phase Two - Red Sea State Wildlife Survey with special reference to Protected Areas of Tokar National Reserve, Arkawit Game Reserve, Sinkat Bird Sanctuary (2016).
17. Participated in One Health Initiative by addressing the gap in ecological health at the national level to strengthen cross-agency cooperation.
18. Undertook Actions to enhance the implementation of the Strategic Plan for Biodiversity as well as wildlife trafficking.
19. Contributed in the formulation of the first communication national report of Nagoya Protocol which aims at sharing the benefits arising from the utilization of genetic resources in a Fair equitable way.

**ECONOMIC PROSPECTS FOR WILDLIFE RESEARCH**

1. WRC Research Farm carried out studies on some endangered species recovery through captive breeding for their restoration and re-introduction into the wild (Red Necked Ostriches-Dorcas gazelles-Nile Crocodiles) and Wild Lizards- Snakes and Ornamental birds.
2. Conducting research and approaches to develop Honey-bees breeding and honey production.
3. Establishment of Venom Production and research Laboratory from Medically Important Snakes.
4. Carry out research and Focus on some wild flora used as medical or aromatic purposes.
5. Design a sustainable management plan applicable for ecotourism and community development.