



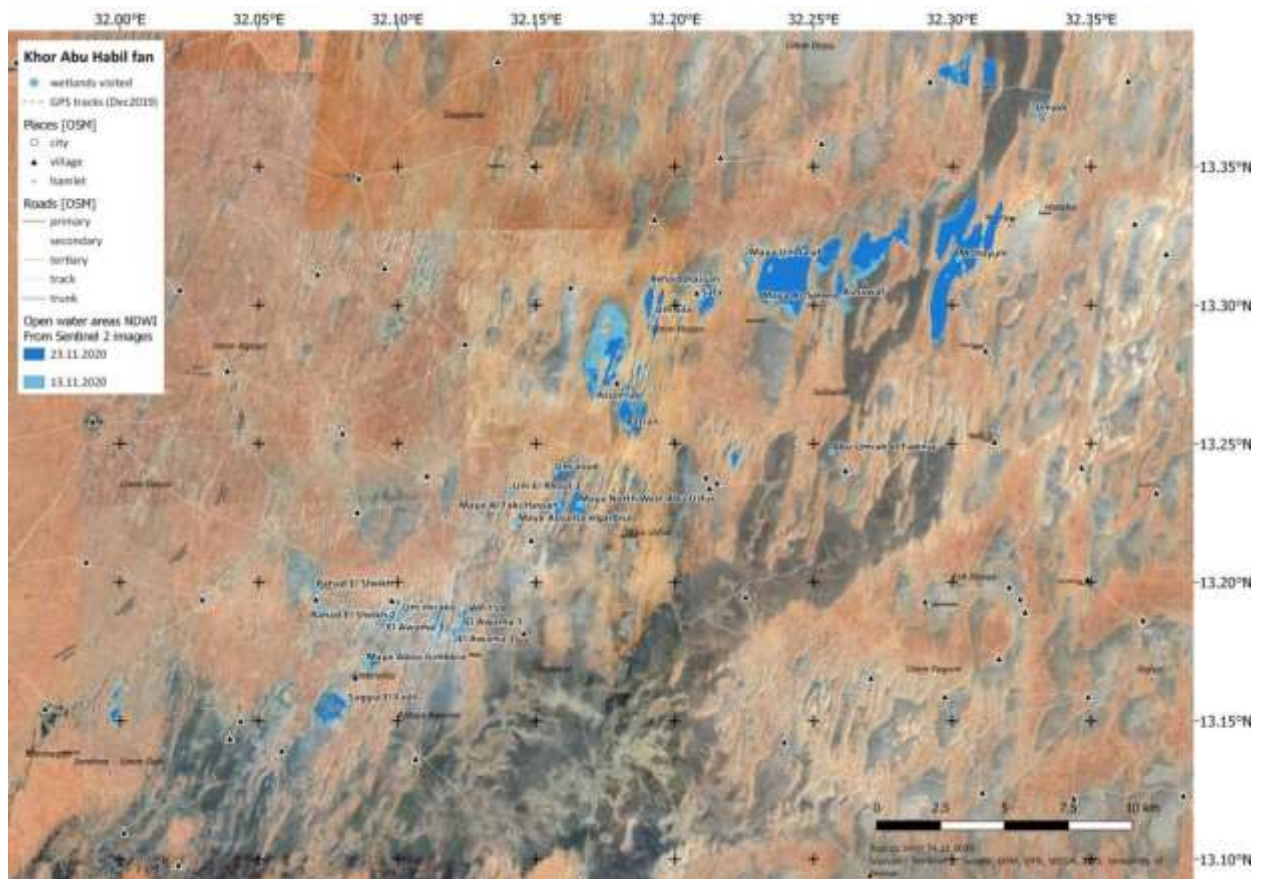
WATERBIRD CENSUS IN KHOR ABU HABIL INNER DELTA, BRIEF REPORT SUDAN (DECEMBER 2020)

International Waterbird Counts (IWC) were carried out from December 3 to 7/12/2020 in the Khor Abou Habil Inner Delta together by WCGA, SWS, WRC, TDV & OFB¹ staff and partners, in the framework of the RESSOURCE Project coordinated by FAO. As in other parts of the Sahel, heavy and concentrated rains in Summer 2020 were the source of flash floods causing considerable damage not only in cities (as in Khartoum for instance) but in some villages in the Inner Delta area.

As for the missions carried out in previous years, the open water areas were mapped by remote sensing in the inner Delta of Khor Abou Habil shortly before the mission by Mrs Deschamps (Tour du Valat Research Institute).

For software maintenance reasons, Landsat 8 satellite images were not available at the beginning of November, so Sentinel-2 images were used to discriminate areas in water. The NDWI index made it possible to locate areas still in water 1 week before the field mission. We were thus able to optimize the mission and verify the accuracy of the data used.

¹ ¹ **WCGA** : Wildlife Conservation General Administration. **SWS** : Sudanese Wildlife Society **WRI** : Wildlife Research Centre. **TDV**: Tour du Valat Research Institute, **OFB** (ex **ONCFS**) French Biodiversity Agency



Location map of open water areas, villages and tracks in Khor Abou Habil area, Sudan, November 2020

The mission being multi-objective (census, training and support for the designation of the site within the framework of the Ramsar convention), the training of the agents focused as much on the identification and the census of the different waterbird species as on the processes of management / wetland conservation. Strong emphasis was also placed on the functioning of the Ramsar Convention as a tool for wetlands conservation and management.

Fourteen Sudanese agents were able to benefit from this training: 9 WCGA agents including 8 from Khartoum and 2 local ones, 1 member of the Sudanese Wildlife Society, 1 agent of the Sudanese Survey Authority, the Director of Wildlife Research Center (also recruited as a consultant in the framework of the socioeconomic FAO consultancy), 1 agent of the Civil Register renamed shortly after to the WCGA, and 1 person of the Higher Council for Environment and Natural Resources (Ramsar Focal Point for Sudan).

WATERBIRD CENSUS PRELIMINARY RESULTS (DECEMBER 2020)

Waterbirds have been counted on eight mayas only (see Table 2).

Table 1 : Numbers of waterbirds and raptors counted in the KAH inner delta in December 2020. Species whose numbers exceed international importance thresholds are highlighted in yellow, see also table 3.

| English name | Latin | Numbers |
|-------------------|-------------------------------|---------|
| Abdim's Stork | <i>Ciconia abdimii</i> | 8 |
| African Comb Duck | <i>Sarkidiornis melanotos</i> | 20 |
| African Darter | <i>Anhinga rufa</i> | 2 |

| | | |
|----------------------------|---------------------------------|---------------|
| African Jacana | <i>Actophilornis africanus</i> | 27 |
| African Openbill | <i>Anastomus lamelligerus</i> | 743 |
| African Pygmy-goose | <i>Nettapus auritus</i> | 4 |
| African Sacred Ibis | <i>Threskiornis aethiopicus</i> | 64 |
| African Spoonbill | <i>Platalea alba</i> | 9 |
| Black-headed Heron | <i>Ardea melanocephala</i> | 6 |
| Black-tailed Godwit | <i>Limosa limosa</i> | 1 095 |
| Black-winged Stilt | <i>Himantopus himantopus</i> | 1 196 |
| Caspian Plover | <i>Charadrius asiaticus</i> | 3 |
| Cattle Egret | <i>Bubulcus ibis</i> | 323 |
| Collared Pratincole | <i>Glareola pratincola</i> | 912 |
| Common Greenshank | <i>Tringa nebularia</i> | 63 |
| Common Gull-billed Tern | <i>Gelochelidon nilotica</i> | 242 |
| Common Pochard | <i>Aythya ferina</i> | 6 |
| Common Ringed Plover | <i>Charadrius hiaticula</i> | 10 |
| Common Snipe | <i>Gallinago gallinago</i> | 6 |
| Common Teal | <i>Anas crecca</i> | 1 |
| Eurasian Bittern | <i>Botaurus stellaris</i> | 1 |
| Eurasian Spoonbill | <i>Platalea leucorodia</i> | 341 |
| Eurasian Wigeon | <i>Mareca penelope</i> | 480 |
| European Turtle-dove | <i>Streptopelia turtur</i> | 6 |
| Ferruginous Duck | <i>Aythya nyroca</i> | 16 |
| Garganey | <i>Spatula querquedula</i> | 16 820 |
| Glossy Ibis | <i>Plegadis falcinellus</i> | 830 |
| Great White Egret | <i>Ardea alba</i> | 48 |
| Green Sandpiper | <i>Tringa ochropus</i> | 10 |
| Grey Heron | <i>Ardea cinerea</i> | 200 |
| Kentish Plover | <i>Charadrius alexandrinus</i> | 1 205 |
| Kittlitz's Plover | <i>Charadrius pecuarius</i> | 10 |
| Lesser Black-backed Gull | <i>Larus fuscus</i> | 1 |
| Little Egret | <i>Egretta garzetta</i> | 78 |
| Little Grebe | <i>Tachybaptus ruficollis</i> | 6 |
| Little Ringed Plover | <i>Charadrius dubius</i> | 23 |
| Little Stint | <i>Calidris minuta</i> | 491 |
| Long-tailed Cormorant | <i>Microcarbo africanus</i> | 95 |
| Marabou | <i>Leptoptilos crumenifer</i> | 2 |
| Marsh Sandpiper | <i>Tringa stagnatilis</i> | 11 |
| Northern Pintail | <i>Anas acuta</i> | 34 161 |
| Northern Shoveler | <i>Spatula clypeata</i> | 2 741 |
| Pelican spp. | <i>Pelecanus spp.</i> | 2 |
| Purple Heron | <i>Ardea purpurea</i> | 5 |
| Ruff | <i>Calidris pugnax</i> | 1666 |
| Southern Pochard | <i>Netta erythrophthalma</i> | 1 |
| Spotted Redshank | <i>Tringa erythropus</i> | 11 |
| Spur-winged Lapwing | <i>Vanellus spinosus</i> | 90 |
| Squacco Heron | <i>Ardeola ralloides</i> | 110 |

| | | |
|-----------------------------------|-------------------------------|---------------|
| Temminck's Stint | <i>Calidris temminckii</i> | 11 |
| White-faced Whistling-duck | <i>Dendrocygna viduata</i> | 1 070 |
| White-winged Tern | <i>Chlidonias leucopterus</i> | 3 |
| Wood Sandpiper | <i>Tringa glareola</i> | 255 |
| Yellow-billed Egret | <i>Ardea brachyrhyncha</i> | 22 |
| Yellow-billed Stork | <i>Mycteria ibis</i> | 6 |
| TOTAL WATERBIRD | | 65 568 |
| Harrier spp. | <i>Circus spp.</i> | 19 |
| Montagu's Harrier | <i>Circus pygargus</i> | 4 |
| Osprey | <i>Pandion haliaetus</i> | 1 |
| Pallid Harrier | <i>Circus macrourus</i> | 2 |
| Peregrine Falcon | <i>Falso peregrinus</i> | 2 |
| Western Marsh-harrier | <i>Circus aeruginosus</i> | 31 |

Numbers of waterbirds and raptors counted in the Inner Delta in December 2020

The results of this count confirm once again the international importance of the inner Delta of Khor Abu Habil for waterbirds. The threshold of criterion 5 of the Ramsar Convention (20,000 waterbirds) is largely exceeded with only 8 Mayas counted (out of several hundred existing). The thresholds of 1% of the population (criterion 6) are also exceeded for several species again (Collared Pratincole, Garganey, Kentish Plover, Northern Pintail and Eurasian Spoonbill).

Table 2 : Species diversity and total birds counted per Maya in December 2019

(sites with more than 10 000 waterbirds are highlighted in Yellow).

| Maya Name | Number of different species | Total counted |
|-----------------------|------------------------------------|----------------------|
| Ashawaf | 29 | 5468 |
| Assonta | 1 | 1 |
| Fawa Wad Naouai | 19 | 1713 |
| Maya As Seleea | 23 | 44992 |
| Mohoyum | 8 | 1012 |
| Obeïd Daar | 15 | 421 |
| Shir Kala | 28 | 718 |
| Tendelti Dam | 34 | 11302 |