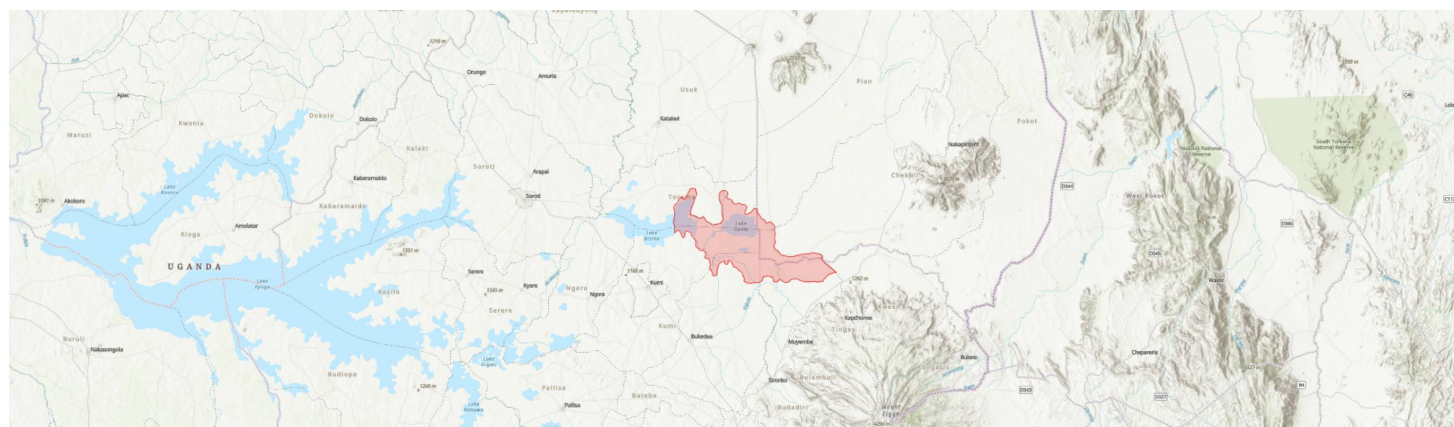


Lake Opeta Wetland

UGATIPA29



Country: **Uganda**

Administrative region: **Eastern (Region)**

Central co-ordinates: **1.60077 N, 34.19305 E**

Area: **566km²**

Qualifying IPA criteria

C(iii)

IPA assessment rationale

Lake Opeta qualifies as an IPA under sub-criterion C(iii) as one of the five best sites for nationally Vulnerable habitat freshwater marsh (VU). Encompassing 7.9% of the national resource, this IPA is possibly the largest extent of freshwater marsh national that could be managed as a single site. As freshwater wetlands become more threatened nationally, it is important to conserve the marshes at this site, particularly to preserve the many important ecosystem services they provide.

Site description

Lake Opeta Wetland IPA (hereafter: Lake Opeta) is one of the most important wetlands nationally. The lake and its surrounding habitats are situated in the Kyoga Basin in northeastern Uganda, in the districts of Nakapiripirit, Sironko, Katakwi and Kumi and is located 25 km from Kumi town. The IPA boundary is based on that of the Lake Opeta Wetland System Ramsar site, while the northern part of this IPA overlaps with Pian-Upe Wildlife Reserve. The main inflow into the Opeta system is through River Sironko (Kasangaki 2009).

Botanical significance

Lake Opeta is one of the most important areas of freshwater marsh, a nationally Vulnerable habitat type, in Uganda. Encompassing 8% of the national resource (Richards et al. 2024), this IPA is likely the largest extent of freshwater marsh that can be managed as a single site. Wetlands are under significant pressure nationally and are estimated to have declined from 17.5% national coverage in the 1990s to 8.5% by 2021 (Wambede 2021). Several wetlands in Uganda have been heavily degraded due to agricultural encroachment – rice farming in particular – resulting from land shortages (Bunyanga et al. 2022). Loss of ecosystem services has been linked to this encroachment, for instance around Mpologoma wetlands degradation has been linked to increased flooding locally (Wambede 2021).

While there are currently no IPA trigger species in criteria A and B in the Lake Opeta wetland system, further surveys may reveal species of interest. The IPA holds *Cenchrus setosus* subsp. *setosus* (Syn: *Pennisetum ramosum*), a Crop Wildl Relative to Pearl Millet – *Cenchrus americanus* (Syn: *Pennisetum glaucum*).

Habitat and geology

The main vegetation type of the general landscape in this area is *Acacia-Hyparrhenia-Themeda* grass savannah (Langdale-Brown et al. 1964). Lake Opeta wetland system lies on flat terrain and is predominantly an extensive marsh of *Echinochloa pyramidalis* and *Vossia cuspidata* surrounding the open water of the lake to the east and south graduating into dry *Hyparrhenia* grassland savannas. The swamp has Lake Opeta most of which is covered by *Nymphaea nouchali* var. *caerulea* with *Najas pectinata* and *Ceratophyllum demersum* and surrounded by a thin fringe or small pockets of *Cyperus papyrus* to the eastern side and patches of *Miscanthus* and *Typha* (Byaruhanga & Kigoolo 2005, Kalema 2005, Odull & Byaruhanga 2009). The marshy areas are fringed by seasonally flooded communities of impeded drainage with *Panicum repens*, *Sporobolus pyramidalis*, *Cyperus articulatus* C. *denudatus* and

Cynodon dactylon (Kalema 2005). The drier land patches are composed of thicket and bushland communities of Euphorbia candelabrum, Grewia villosa in mixture with species of Acacia, Ziziphus, Combretum and Harrisonia.

In the centre of the IPA is Tisai Island, which is occupied by a small community of people. As a result, this area is largely transformed to arable agriculture (Google Earth 2023).

The climate of Lake Opeta wetland system is tropical and influenced by the air currents such as the southeast and northeast monsoons. The system has a rainy and dry season. The area generally experiences a uni-modal low rainfall which comes in the long, wet season of April to October, in contrast to the bimodal pattern of the south and west of Uganda (State of Environment Report, 1998). Rainfall is erratic, variable and highly localized, ranging from 500 – 1,000 mm with a mean annual figure of between 500 to 700 mm. Mean annual minimum temperatures range from 15 to 17.50 C and mean maximum temperature from 30 - 32.50 C. Lake Opeta wetland system is underlain by a mixture of Pre-Cambrian and Cenozoic rocks of Pleistocene to recent (NEMA 2009).

Date of first assessment:
1st Oct 2024

Reviewed by:
Micheal Kibuule, Nature Uganda

Conservation issues

Lake Opeta Wetland is both an Important Bird Area (IBA) and a Ramsar Site (Odull & Byaruhanga 2009). NatureUganda has been promoting the conservation of Lake Opeta as a potential tourism destination and also prioritizing it for conservation because of its importance for the survival of the Near Threatened Fox’s Weaver, Uganda’s only endemic bird (Byaruhanga & Kigolo 2005). This site is also of note for the presence of a Vulnerable cichlid fish, Paralabidochromis plagiodon, which is restricted to lakeshores of Lake Victoria, Kyoga and Opeta (FishBase 2024; Morris 2024). NatureUganda has also been lobbying the relevant institutions to upgrade the conservation status of the area while the Wetland Management Department undertakes education and awareness activities in the area.

There is often overstocking of cattle grazing in the wetlands during dry seasons, which may have a long-term impact on the ecology and character of the area. Fishing occurs on the lake, often leading to the subsequent cutting of trees for smoking fish, along with charcoal burning (Kalema 2005). The River Sironko, which drains into the Lake Opeta system, is highly turbid from agricultural activities upstream (Kasangaki 2009), and may potentially impact the quality of the freshwater marshes at this site.

Site assessor(s)

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IPA criterion A species

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE
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IPA criterion C qualifying habitats

HABITAT	QUALIFYING SUB-CRITERION	≥ 5% OF NATIONAL RESOURCE	≥ 10% OF NATIONAL RESOURCE	1 OF 5 BEST SITES NATIONALLY	AREAL COVERAGE AT SITE
Freshwater marshes (VU)	C(iii)	✓	—	✓	374.1
Vitellaria (Butyrospermum) wooded grassland (EN)	C(iii)	—	—	—	0.0000533

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands [generally over 8 ha]	—	Major
Wetlands (inland) - Permanent Freshwater Lakes [over 8 ha]	—	Major
Artificial - Terrestrial - Arable Land	—	Major
Savanna - Dry Savanna	—	Minor
Grassland - Subtropical/Tropical Seasonally Wet/Flooded Lowland Grassland	—	Major

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Nature conservation	—	Major
Agriculture (arable)	—	Major
Agriculture (pastoral)	—	Major
Agriculture (aquatic)	—	Major

Threats

THREAT	SEVERITY	TIMING
Residential & commercial development - Housing & urban areas	Medium	Ongoing - stable
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Medium	Ongoing - stable
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Medium	Ongoing - trend unknown

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Marine & freshwater aquaculture - Subsistence/artisinal aquaculture	Unknown	Ongoing - trend unknown
Biological resource use - Logging & wood harvesting	Low	Ongoing - trend unknown

Protected areas

PROTECTED AREA NAME	PROTECTED AREA TYPE	RELATIONSHIP WITH IPA	AREAL OVERLAP
Lake Opeta Wetland System	Ramsar site	protected/conservation area matches IPA	566
Pian Upe	Wildlife Reserve	protected/conservation area overlaps with IPA	76

Conservation designation

DESIGNATION NAME	PROTECTED AREA	RELATIONSHIP WITH IPA	AREAL OVERLAP
Lake Opeta	Important Bird Area	protected/conservation area matches IPA	566
Lake Opeta	Key Biodiversity Area	protected/conservation area matches IPA	566

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
No management plan in place		—	—

Bibliography

2019. Google Earth. Satellite Imagery

Elshehawi, S., Barthelmes, A., Beer, F., & Joosten, H. 2019. Assessment of Carbon (CO2) emissions avoidance potential from the Nile Basin peatlands.

Langdale-Brown, I., Osmaston, H. A., & Wilson, J. G. 1964. The Vegetation of Uganda and its Bearing on Land-Use.

Byaruhanga, A. & Kigoolo, S. 2005. Lake Opeta Wetland System Ramsar Information Sheet.

Bunyangha, J., Muthumbi, A. W. N., Egeru, A., Asiimwe, R., Ulwodi, D. W., Gichuki, N. N. & Majaliwa, M. J. G. 2022. Preferred Attributes for Sustainable Wetland Management in Mpologoma Catchment, Uganda: A Discrete Choice Experiment. Land, Vol 11

Wambede, F. 2021. How human activities have destroyed Mpologoma wetland. Daily Monitor

BirdLife International 2017. Ploceus spekeoides. The IUCN Red List of Threatened Species 2017: e.T22718933A118849332..

FishBase 2024. Haplochromis plagiodon.

Kalema, J. 2005. Diversity and distribution of vascular plants in wetland and savanna Important Bird Areas of Uganda..

Kasangaki, E. 2009. Water quality assessments in the Opeta-Bisina wetland systems and Mburo-Nakivale wetland systems. A report to NatureUganda..

Harvard University M, Morris, P. J. 2024. Occurrence dataset

<https://doi.org/10.15468/p5rupv>, Museum of Comparative Zoology, Harvard University. Version 162.441.

Odull, O., M. & Byaruhanga, A. 2009. Ecological baseline survey of Lake Opeta-Bisina wetland system Lake Mburo-Nakivali wetland system.

NaFIRRI 2008. Report of Frame Survey of the Kyoga Basin Lakes 2008..

NEMA 2009. Uganda: Atlas of Our Changing Environment.