**APPENDIX I: COMPARATIVE ANALYSIS TABLES FOR NABUGABO’S BIODIVERSITY IMPORTANCE WITH REFERENCE TO DIFFERENT TAXA**

# TABLE 1. Biodiversity status for Nabugabo compared to other key wetland sites\*\*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BIODIVERSITY VALUES OF SITES BASED ON WL & WA DATA ONLY.**  **TABLE SORTED ON RANK (b) VALUES** | | | | | | | | |
| **Site** | **Biodiversity Value** | | | | | | **Rank** | |
| **Plants** | **Odonata** | **Fish** | **Birds** | **Mean (a)** | **Mean (b)** | **(a)** | **(b)** |
| Lake Nabugabo | 19.15 | 2.19 | 0.28 | 2.89 | **6.13** | **6.13** | 2 | 1 |
| Muchoya swamp | 18.85 | 0.19 |  | 1.03 | **6.69** | **5.57** | 1 | 2 |
| Lutembe Bay | 11.10 | 1.37 | 2.30 | 5.98 | **5.19** | **5.19** | 4 | 3 |
| Omito (L. Bisina) | 5.11 |  | 3.81 | 8.37 | **5.76** | **4.68** | 3 | 4 |
| Kyojja swamp | 10.55 | 0.85 | 0.48 | 5.05 | **4.23** | **4.23** | 7 | 5 |
| Doho Rice Scheme | 2.63 | 6.01 |  | 4.68 | **4.44** | **3.88** | 6 | 6 |
| Oyu (Albert Nile) | 8.25 | 1.60 |  |  | **4.93** | **3.81** | 5 | 7 |
| Lake Mutanda | 8.77 | 0.35 | 0.78 | 3.45 | **3.34** | **3.34** | 10 | 8 |
| River Sezibwa Falls | 6.69 | 5.40 | 0.28 | 0.24 | **3.15** | **3.15** | 11 | 9 |
| Lake Opeta | 5.93 | 1.00 | 3.77 | 1.60 | **3.08** | **3.08** | 12 | 10 |
| Kitanga swamp | 7.07 | 3.14 | 0.38 | 1.57 | **3.04** | **3.04** | 13 | 11 |
| Lake Kochobo | 5.17 | 0.91 | 1.17 | 4.43 | **2.92** | **2.92** | 14 | 12 |
| Masulula swamp | 2.55 |  |  | 4.79 | **3.67** | **2.74** | 8 | 13 |
| Rhino Camp (Albert Nile) | 0.17 | 1.13 | 8.66 | 0.83 | **2.70** | **2.70** | 15 | 14 |
| Lumbuye Dam | 3.04 | 2.33 |  |  | **2.69** | **2.69** | 16 | 15 |
| Aakide (Lake Bisina) | 5.55 | 2.59 | 1.35 | 1.23 | **2.68** | **2.68** | 17 | 16 |
| Sezibwa swamp forest | 6.98 |  |  | 0.03 | **3.51** | **2.65** | 9 | 17 |
| Waseko (Victoria Nile) | 1.87 | 0.07 | 5.29 |  | **2.41** | **2.61** | 22 | 18 |
| Lake Mburo | 2.95 | 0.05 | 3.76 | 3.22 | **2.50** | **2.50** | 19 | 19 |
| Lake Munyanyange | 1.48 | 0.02 |  | 6.11 | **2.54** | **2.45** | 18 | 20 |
| Kazinga Channel | 0.58 | 0.20 |  | 6.70 | **2.49** | **2.42** | 20 | 21 |
| Kasenyi (Lake George) | 3.68 | 0.02 | 1.64 | 4.32 | **2.42** | **2.42** | 21 | 22 |
| River Malaba | 3.99 | 3.20 | 0.76 | 1.64 | **2.40** | **2.40** | 23 | 23 |
| Lake Nyaguo | 1.66 | 0.02 |  | 4.24 | **1.97** | **2.03** | 25 | 24 |
| Hamukungu (Lake George) | 3.67 | 0.02 | 2.45 | 1.94 | **2.02** | **2.02** | 24 | 25 |
| Acha swamp | 2.52 | 2.60 | 0.50 | 1.84 | **1.87** | **1.87** | 27 | 26 |
| Lake Gigati | 1.46 | 0.02 | 2.44 | 2.71 | **1.66** | **1.66** | 26 | 27 |
| Lake Kachera | 0.78 | 0.07 | 1.49 | 0.84 | **0.80** | **0.80** | 28 | 28 |
| Mean | 5.44 | 1.41 | 2.19 | 3.19 | **3.26** | **3.06** |  | |
| Min | 0.17 | 0.02 | 0.28 | 0.03 | **0.80** | **0.80** |
| Max | 19.15 | 6.01 | 8.66 | 8.37 | **6.69** | **6.13** |
| **Mean (b) & Rank (b)** = blank cells filled using the mean biodiversity value for the taxon for all sites.  **WL & WA** = wetland dependent and wetland associated respectively | | | | | | | | |

\*\* Detailed analyses of the different taxa in Lake Nabugabo are indicated in Table 2-6

# TABLE 2. Species richness, rarity and overall biodiversity assessment scores for the Lake Nabugabo and the satellite lakes

## Species richness, species rarity and overall biodiversity assessment scores for the Lake Nabugabo system.

Lake

Site Kayanja Kayugi Manywa Nabugabo

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Land cover class | | SG/W | SGsg | TG | TG |
| Score for species richness | Plants | 0 | 2 | 0 | 0 |
| Mammals |  |  |  |  |
| Birds | 0 | 0 | 0 | 0 |
| Amphibians | 2 | 0 | 0 | 2 |
| Butterflies |  |  |  |  |
| Dragonflies | 4 | 0 | 0 | 1 |
| Fish | 3 | 4 | 1 | 5 |

*Sub-total 9 6 1* *8*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| or species arity | Plants | 0 | 3 | 0 | 0 |
| Mammals |  |  |  | 4 |
| Birds | 0 | 0 | 0 | 0 |
| Amphibians | 0 | 0 | 0 | 4 |
| Score f  r | Butterflies |  |  |  |  |
| Dragonflies | 1 | 0 | 0 | 0 |
| Fish | 0 | 3 | 0 | 5 |

## KEY:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Sub-total* | *1* | *6* | *0* | *13* |
| **Overall total** | **10** | **12** | **1** | **21** |

SG/W = short grass / water SG/sg = short grass / sedges TG = tall grass swamp

0 = no score blank = no data

# TABLE 3.

**The number of fish species at various sites in the Sango Bay area.**

No. species

NB. High score for Nabugabo attributed to more intensive sampling; the DI team

observe that new species are found with each new survey; so more are likely to be discovered in future.

|  |  |
| --- | --- |
| ***L. Nabugabo*** | ***24*** |
| ***L. Kayanja swamp*** | ***15*** |
| ***L. Kayugi*** | ***14*** |
| L. Victoria - Diimu | 12 |
| L. Victoria - Goma | 18 |
| L. Victoria - Nakiga | 20 |



# TABLE 4. Key species of Cichlid fish recorded from L. Nabugabo wetland system

|  |  |
| --- | --- |
| **Distribution** | **Species** |
| Endemic to Lakes Victoria and Kyoga | *Oreochromis esculentus* (Tilapia esculenta) Graham  *Oreochromis* (Tilapia) *variabilis* Blgr. |
| Endemic to Lake Nabugabo system | *Haplochromis velifer* Trewavas, 1933.  *Haplochromis simpsoni* sp. nov. *Haplochromis annectideus* Trewavas, 1933. *Haplochromis beadlei* Trewavas, 1933.  *Haplochromis venator* sp. nov. |
| Widely distributed in the Lakes Victoria and Edward drainage basins | *Astatoreochromis alluaudi* Pellegrin, 1903. (1)  *Hemihaplochromis multicolor* (Schoeller) 1903.  *Haplochromis nubilus* (Blgr.) 1906. |
| Introduced species | *Lates niloticus* (2) *Tilapia zillii Oreochromis niloticus*  *Oreochromis leucostictus* |

1. possibly an introduction to Lake Nabugabo.



1. the Nile perch is not a cichlid species; there are several other non-cichlid fish species in these lakes.

# TABLE 5.

## NUMBER OF PLANT GENERA AND SPECIES AT LAKE NABUGABO AND ALL SITES COMPARED.

**WL & WA WL only**

**Site** Genus species Genus species

Nabugabo 61 74 13 15

All sites(\*)

Mean 21 26 9 10

Max. 61 74 23 30

## Wetland plants of the Sango Bay area

(\*) = 93 sites in total.

No. species

No. unique

spp.

L. Kayugi 54 19

L. Kayanja swamp 26 6

L. Victoria - Diimu 50 22

L. Victoria - Goma 76 36

L. Victoria - Nakiga 53 10

# TABLE 6.

## NUMBER OF BIRD SPECIES AT LAKE NABUGABO AND ALL SITES COMPARED.

|  |  |
| --- | --- |
|  | **WL+ WA+WLP** |
| **Site** | No. species |
| Nabugabo | 27 |
| All sites(\*)  Mean Min. Max. | 25  1  68 |

|  |
| --- |
| **WL + WLP** |
| No. species |
| 21 |
| 17  0  51 |

|  |
| --- |
| **ALL BIRDS** |
| No. species |
| 35 |
| 30  6  82 |

(\*) = 93 sites in total.