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POND SIZE AFFECTS ABUNDANCE AND DIVERSITY OF AVIAN SPECIES

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ARTICLE INFO	ABSTRACT
Keywords; Wetlands, Conservation, Ornithology, Birds, Abundance, Species Diversity	Wetlands provide great important ecosystem services and serve as refugia for biodiversity. Birds are bio-indicators of environmental health and utilize the wetland ecosystems. Wetlands and birds face many threats from anthropogenic activities in the forms of degradation and habitat loss. This research aimed at assessing the effects of pond size on avian abundance and diversity in a wetland in Jos south Local Government Area of Plateau state, ten (10) ponds were sampled using point count method. Each pond had two (2) points which were visited twice daily (morning and afternoon) each. A total of three thousand, four hundred and forty-eight (3448) individual birds consisting of 97 species belonging to fifty- one (51) families were recorded. Intra-African migrants such as Didric cuckoo (Chrysococcyx caprius) and yellow-billed kite (Milvus aegyptius) were recorded. Species diversity and abundance were tested against the size of the pond, depth of the pond and vegetation cover on and around the pond to determine the factors that best depicts the diversity and abundance of avian species at the Rennajj fish farm. Pond size was a significant predictor of bird abundance (***P***< **0.01)** and had a slight positive effect on the diversity of avian species which was not statistically significant at (***P***>**0.05**). Depth of the pond had no significant effect on both bird abundance and species diversity (***p***>**0.05)**. Vegetation parameters such as shrubs and saplings had positive effect while vegetation on water and number of trees had negative relationship at (***p***<**0.001)** on the abundance of birds, vegetation on the water had a negative relationship at (***p***<**0.001)** with the diversity of bird species. Wetland ecosystems should be protected from excessive human activities as they host wealth of biodiversity.

1.0 INTRODUCTION

Wetlands are terrestrial or semi-terrestrial ecosystems characterized by low drainage quality, slow waters or seldom standing water body filled with soil (Olalekan, Abimbola, Saheed & Damilola, 2014). Wetlands are important for the maintenance of biodiversity (Weller, 1999, Ramsar Convention, 2013) including water birds, in turn water birds provide ecosystem services of considerable economic values such as bird watching or pest control (Green & Elmberg, 2013).

The values of wetlands are of extreme socioeconomic, cultural and ecological importance to various stakeholders at local communities, national and global scales and provide many ecosystem services (Bako, 2021). Wetlands are so important that a day have been set aside to celebrate the World wetlands Day (Bobbink, 2006). The main threats that lead to the degradation/loss of wetlands in Africa are both natural factors (such as from climatic factors such as drought) and anthropogenic factors (such as deforestation, dams construction, urbanisation and poor management) driven by population growth and economic development (Bobbink, 2006).

Birds are the most conspicuous and significant inhabitants of freshwater wetland ecosystems. Presence or absence of birds may indicate the ecological conditions of the wetland area. They are therefore, bio-indicators of environmental health (Bibby, Burgess, and Mustoe, 2000 and Rajpar & Zakaria, 2011). If a wetland is in danger of loss, birds will be among the first indicators of such dangers ahead (Green & Amat, 2010). Birds perform other important ecosystem services to include pollination and seed dispersal (Bako, 2021). Nigeria is blessed with some globally important wetlands; the Hadejia Nguru wetlands is the major one and first wetland to be named as a Ramsar site (Ramsar Convention, 1994).

In Plateau state, most wetlands are abandoned mined sites which had collected water over the years (Gurumse, 2016).

Monitoring the species abundance, richness and habitat selection, and correlation between species abundance and habitat characteristics provides basic information for determining factors responsible for population declines of bird species (Norvell, Howe and Parrish, 2003). Microhabitat and microclimatic characteristics significantly predict species richness, evenness and abundance (Tu, Fan and Ko, 2020).

Wetland areas have been reduced by more than 50% globally in the past century, and this destruction is likely to continue (Fraser and Keddy, 2005, Mitsch, 2005 and Mitsch and Day, 2006). The gradual and continuous loss and degradation of wetlands due to development and pollution have also adversely affected wetland bird species and other biodiversity that utilize these environments as habitats (Altman and Bart, 2009, Taylor and Pollard, 2008, Altman and Bart, 2009, Mitsch, 2010)

This study was aimed at determining the effect of pond sizes, vegetation parameters and depth of fish pond on species diversity and abundance of birds.

2.0 MATERIALS AND METHODS

2.1 Study Area

The study was conducted at Rennajj Fish Farm/ Eden Creation Care Initiative. It is an old mine site that was transformed into a fish farm in 1986 to produce fish in commercial scale. The farm consists of eleven (11) production ponds and six (6) nursery ponds covering about 54.55 hectares and is located at 09°49.078` E008°54.304` Jos South LGC, Plateau State. Mean altitude is 1315 m.a.s.l. Most of the vegetation around is made up of *Eucalyptus* tree species with newly planted indigenous tree species such as Date palm *(Phoenix dactylifera),* African locust bean *(Parkia biglobosa)* and Silk cotton *(Ceiba pentandra)*. The ecosystem of the pond is rich in macrophytes.

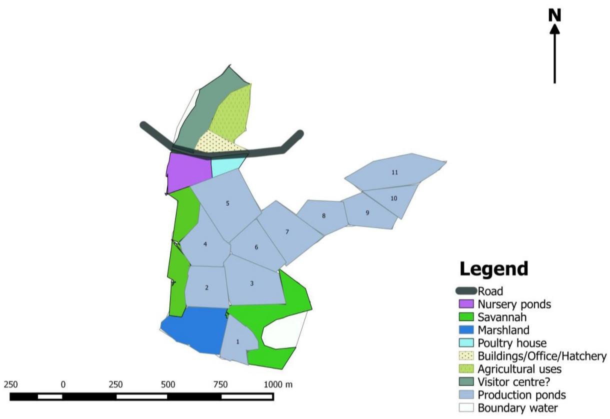

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Figure 1: The map of Rennajj fish and integrated farms showing the different sections within the farm

2.2 Bird Census Technique

Point count method was used to record birds within the study site, two points each were laid across the 10 ponds, making a total of 20 points. The points were marked using a Global Positioning System (GPS). A total of five minutes were spent at each point and this was achieved via the use of a stop-watch. Observations were made using a pair of binoculars (magnification 8x42) and identified appropriately. The helm field guides of birds of Western aided this (Borrow & Demey, 2008). Each pond was visited twice daily for ten days, morning and afternoon to ensure that birds species were recorded.

2.3 Measurement of micro-habitat Characteristics

Vegetation parameters collected include: Percentage vegetation cover on the water to the nearest 5% was estimated by focal observation, Number of trees in and around the pond were counted. Vegetation was classified based on the criterion of size as; <1cm (saplings), 1-10cm (shrubs) and >10cm (trees).

The areas of the ponds were calculated using the GPS. Depth of the ponds were measured to the nearest centemeter (cm) using a measuring stick that was placed close to the monk (sluice gate) at each pond respectively. (Rennajj Fish Farm Management Plan).

2.4 Statistical analysis

Data was entered into Microsoft Excel 2016 and exported to R statistical software version 3.6.2, (R development Core Team, 2020) for statistical analysis. The R statistical package “reshape” was used to organize the data in R and the statistical package "vegan" was used to extrapolate avian abundance and diversity the "rank abundance" function in Biodiversity R package was used to calculate species abundance by their ranks. The response variables (diversity and abundance) were subjected to test for normality using Shapiro-Wilk test. The response variables (diversity and abundance) were normally distributed and so they were subjected to parametric tests.

Linear regression models were built to test for the effects of pond size on abundance and diversity as well as for the effects of pond depth on abundance and diversity.

Collinearity problem was checked for vegetation variables using the "vif" (Variance Inflation Factor and test for multi-collinearity) within the R package "usdm" with threshold set to 0.7. All the vegetation variables were included in the general models with avian diversity and abundance as response variables since none of the vegetation variables had collinearity problems.

Stepwise backward deletion was carried out for both models until the best model was selected on the basis of AIC.

3.0 RESULTS

3.1 Nature of Avian Records Obtained

A total of three thousand, four hundred and forty-eight (3,448) individual birds belonging to 97 species and fifty-one (51) families were recorded. Intra-African migrants such as Didric cuckoo (*Chrysococcyx caprius*) and Yellow-billed kite (*Milvus aegyptius)* were recorded. (Appendix 1). White-faced whistling duck was the most abundant species with a total number of one thousand, two hundred and eighty-eight (1288) individuals, while African thrush, barn owl, beautiful sunbird, common moorhen, crested lark, didric cuckoo, orange-cheeked waxbill, red-eyed dove, yellow-billed stork and yellow wagtail were the least abundant with a total of one (1) individual species each.

3.2 Species Effort Curve

(Fig. 2) below shows species-effort curve. Though effort has been put into data collection for it to be subjected to statistical analysis, more species will be recorded with additional efforts. As the curve is yet to reach asymptote.

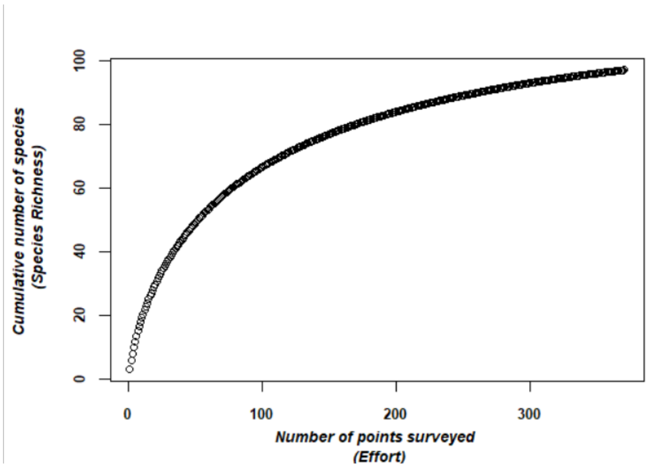


Figure 2: Species effort curve showing the cumulative number of species against the number of points surveyed.

3.3 ASSESSING THE EFFECTS OF POND SIZE ON BIRD ABUNDANCE AND DIVERSITY

3.3.1 Assessing the effects of pond size on bird abundance

Pond size had a significant effect (0.04 ± 0.01; $p < 0.01$) on bird abundance (Table 1). Bird abundance increased as the pond size increased (Figure 3).

Table 1: Generalized linear model showing the effect of pond size on bird abundance

Variable	Estimate	SE	z	P
(Intercept)	2.51	0.05	55.33	**< 0.001**
Pond size	0.04	0.01	2.71	**< 0.01**

Results are presented on a log scale. Significant relationships are highlighted in bold fonts

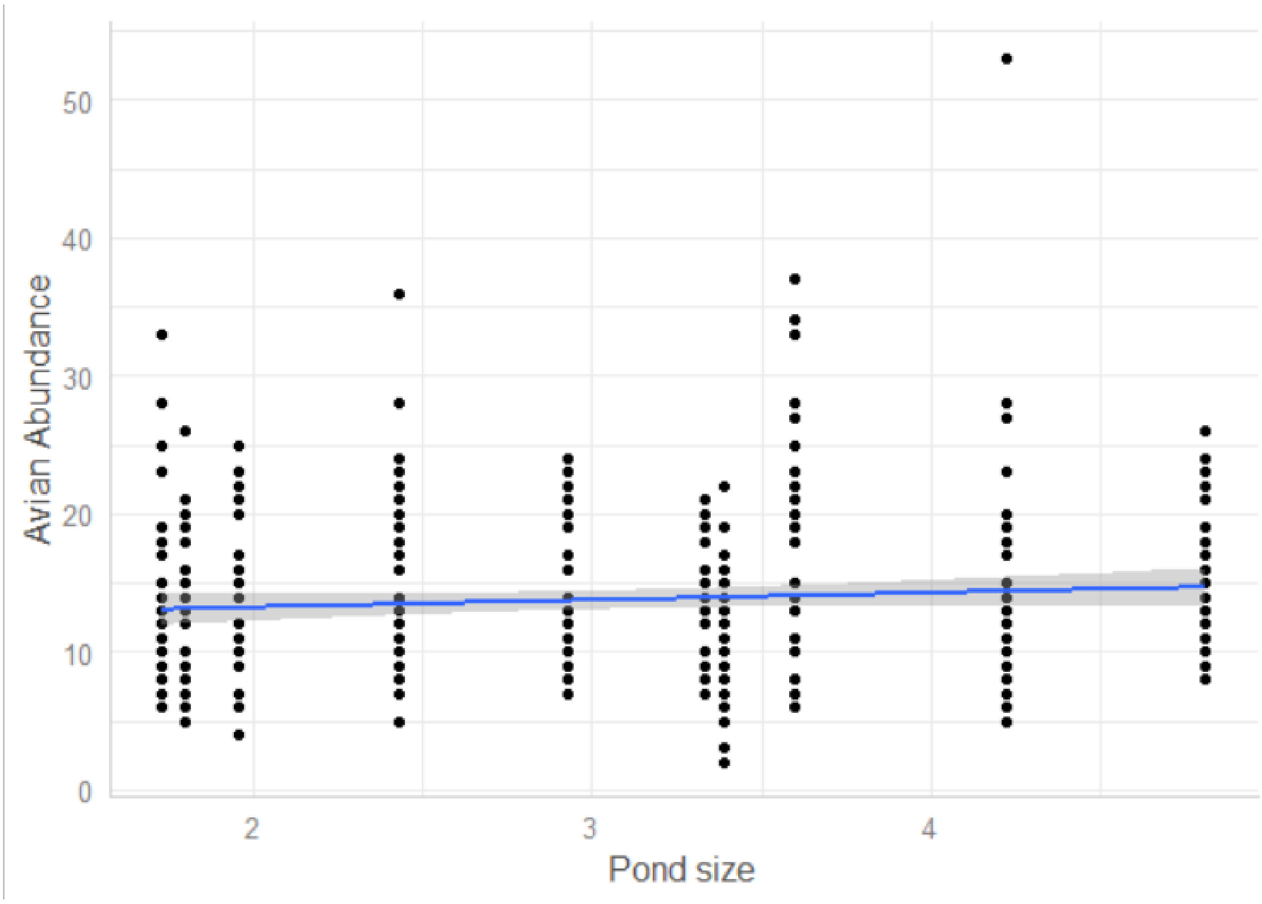


Figure 3: Linear regression showing the relationship between pond size and avian

3.3.2 Assessing the Effects of Pond Size on Bird Diversity

Pond size (0.02 ± 0.02; p = 0.37) did not significantly predict bird diversity (Table 2, Appendix 2). However, as pond size increased, bird diversity increased slightly (Figure 4).

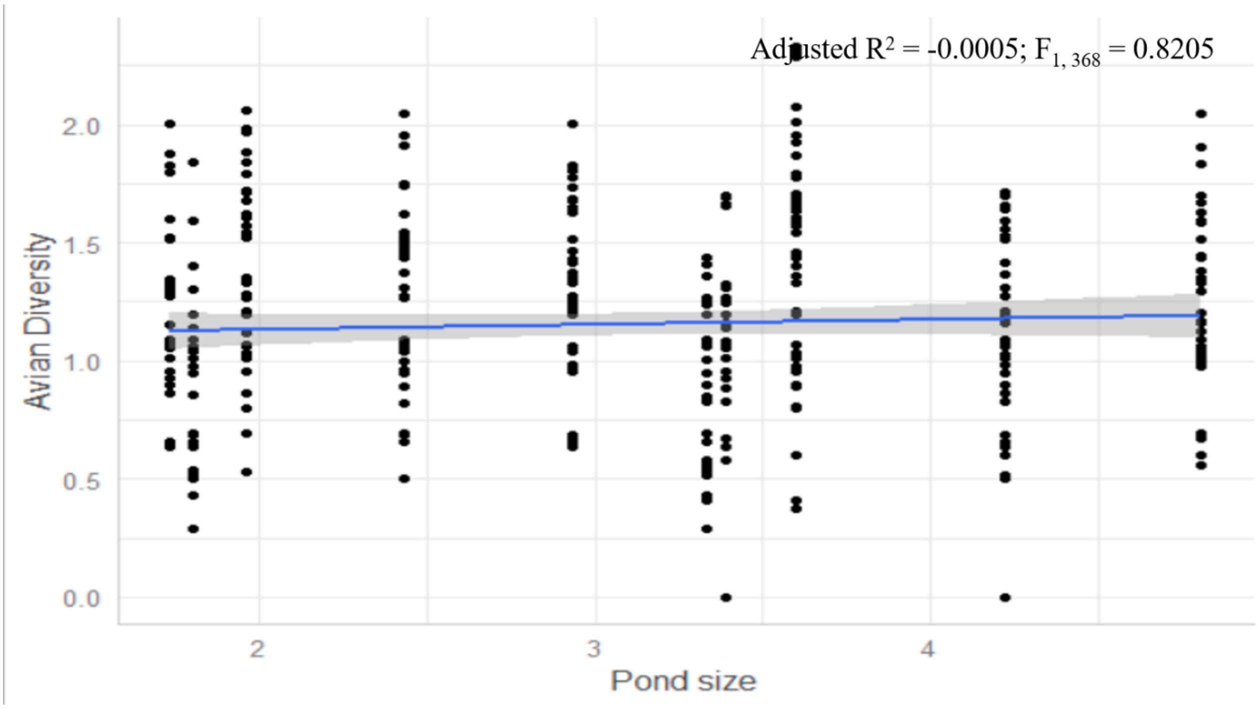


Figure 4: Linear regression showing the relationship between pond size and avian diversity

3.4 EFFECTS OF VEGETATION VARIABLES ON THE ABUNDANCE AND DIVERSITY OF BIRD SPECIES

3.4.1 To Test the Effects of Vegetation Variables on the Abundance of Bird Species

Table 3 and Figure 5 below show the effects of vegetation parameters on bird abundance. Trees (0.011 ± 0.003), shrubs (0.016 ± 0.004), saplings (0.056 ± 0.005) and vegetation on the water (0.005 ± 0.001) were significant predictors of bird abundance. Trees and Vegetation on the water predicted bird abundance negatively. Shrubs and saplings however, positively predicted bird abundance in that, as the number of shrubs and saplings increased, bird abundance also increased.

Table 3: Generalized linear model showing the effects of vegetation parameters on bird abundance

Vegetation variables	Estimate	SE	Z	P
(Intercept)	2.546	0.050	51.40	**<0.001**
Vegetation on the water	-0.005	0.001	-6.80	**<0.001**
Trees	-0.011	0.003	-4.17	**<0.001**
Shrubs	0.016	0.004	4.067	**<0.001**
Saplings	0.056	0.005	10.83	**<0.001**

Results are presented on a log scale. Significant relationships are highlighted in bold fonts.

3.4.2 To test the effect of vegetation variables on the diversity of bird species

Table 4 shows that Vegetation on the water (0.008 ± 0.001) significantly predicted bird abundance negatively. This means that as the vegetation on the water increased, bird diversity decreased (Figure 6).

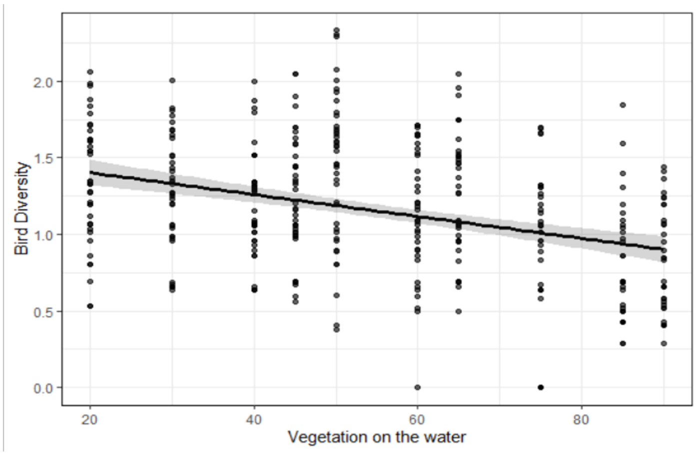


Figure 6: Relationship between vegetation on the water and bird diversity

3.5 ASSESSING THE EFFECTS OF POND DEPTH ON ABUNDANCE AND DIVERSITY OF BIRD SPECIES

3.5. 1 To assess the effect of pond depth on avian abundance

Pond depth (0.0001 ± 0.00; p = 0.762) did not significantly predict bird abundance (Table 5). The regression analysis showed that avian abundance is almost stable as pond depth increased (Figure 7).

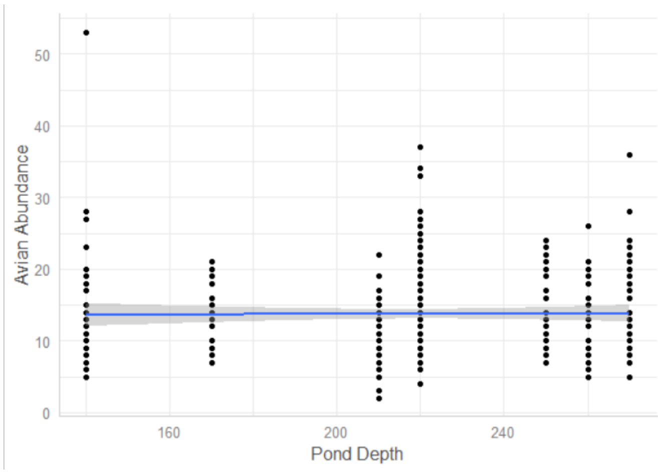
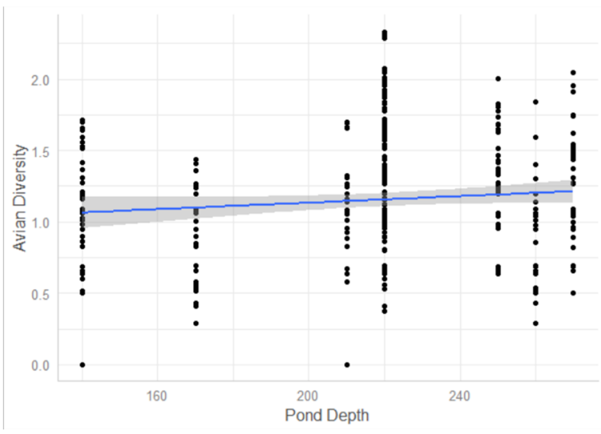


Figure 7: Linear regression showing the relationship between pond depth and avian abundance

3.5.2To assess the effect of pond depth on diversity of bird species



Though pond depth (0.001 ± 0.001; $p =$ 0.07) did not significantly predict avian diversity (Table 6), as pond depth increased, avian diversity also increased (Figure 8, Appendix 2).

Figure 8: Linear regression showing the relationship between pond depth and avian diversity

4.0 DISCUSSION, CONCLUSION AND RECOMMENDATION

4.1 Discussion

4.1.1 Assessing the effects of pond size on bird abundance and diversity

Bird abundance increased as pond size increased. This finding is contrary to that of Sulaiman *et al.* (2015) who found that wetland size had no significant effect on bird abundance, but is in agreement with other authors (He & Legendre, 1996; Celada & Bogliani, 1993; Gibbs *et al*., 1991; Hoyer & Canfield, 1990; Nudds, 1992). Larger wetlands can provide more microhabitats, thereby attracting a greater number of species (Paszkowski & Tonn, 2000). As more microhabitats are provided, more niches are made available for more bird species thus, creating more foraging, nesting sites and materials, by so doing, reducing the competition for limited space. With reduced competition, fitness is improved in the bird species and thus, leading to increased abundance. Also, pond size did not significantly predict bird diversity. However, as the pond size increased, bird diversity increased slightly which is probably because the larger ponds provide more space, so that more kinds of birds can tolerate being in the same area hence increase in bird species diversity (Single, 2004). Also, with larger pond sizes, more niches are created allowing for bird species to have their preferred microhabitats and by so doing increasing species diversity.

4.1.2 The effects of vegetation variables on the abundance and diversity of bird species

Bird species were found to utilize the different ponds in the Rennajj fish farm/Eden Creation Care Initiative widely for nesting, foraging and roosting on the emergent and fringe vegetation (Kumar and Gupta, 2009). Birds select vegetation variable based on how the habitat influence their access to food, mates or its vulnerability to predators (Manu, 2003). Trees, shrubs, saplings, and vegetation on the water were significant predictors of bird abundance.

Trees and vegetation on water predicted bird abundance negatively. Birds' prey such as fish will be difficult to catch in ponds with dense vegetation. Therefore birds are likely to avoid such ponds to save cost of feeding.

Shrubs and saplings however, positively predicted bird abundance in that, as the number of shrubs and saplings increased, bird abundance also increased. Shrubs and saplings may not only serve as roosting sites to bird species but can also serve as foraging grounds and nesting sites with additional advantage to provide nesting material depending on the bird species.

4.1.3 The effects of pond depth on the abundance and diversity of bird species

The results show that bird abundance slightly increased with increasing pond depth. The result agrees with previous findings (Green, 1998; Kreakie et al., 2012; Sebastián-Gonzaléz et al., 2013). The depth of the pond may provide more foraging sites, for bird species. This provision may act to boost fitness, thus increasing the abundance of bird species. The varying pond depth increases diversity of species as it provides more niches that supports various bird species. Deeper ponds are likely to host more of the aquatic organisms such as fish which are prey to the water birds. Certain bird species may prefer shallow waters while others such as divers may prefer deep waters. Sebastián-Gonzaléz and Green (2014) revealed that, shallower ponds supported small-sized species probably because they required shallower water to feed. As pond depth increases, it provides niches that meets the requirement of various feeding guilds of wetland birds thus, increasing the avian diversity.

4.2 Conclusion and Recommendations

This study has shown that pond size and vegetation characteristics has effects on the abundance of birds. Pond depth has a slight positive effects onavifauna abundance as well. Modification of pond sizes and widths could have significant impact on the biodiversity of wetland birds.

Conservation scientists must step up their efforts to ensure their inclusion into government policies and projects especially those that pose as threats to wetlands and any site of biodiversity conservation with full enactment of such policies. Conservation-based fish farming strategies should be advocated as this will be beneficial to both humans and avifauna that utilize the wetlands. Pond sizes and depth should be considered in such farms during the pond design to ensure that it is both beneficial to man and biodiversity. Proper management of wetlands can provide suitable habitats for bird species and biodiversity in general, enhance proper ecosystem functioning and slow down the rate of wetland and important biodiversity sites' degradation and loss.

Finally, seasonal variation studies should be done to investigate the effects of pond sizes on the species diversity and abundance of bird species at the Rennajj fish farm/Eden Creation Care Initiative to understand what impacts seasons may have on the bird species that uses this region as this research was carried out during the rainy season.

4.0 DISCUSSION, CONCLUSION AND RECOMMENDATION

4.1 Discussion

4.1.1 Assessing the effect of pond size on bird abundance and diversity

Bird abundance increased as pond size increased. This finding is contrary to Sulaiman *et al.* (2015) who found that wetland size had no significant effect on bird abundance, but is in agreement with other authors (He & Legendre, 1996; Celada & Bogliani, 1993; Gibbs *et al*., 1991; Hoyer & Canfield, 1990; Nudds, 1992). Larger wetlands can provide more microhabitats, thereby attracting a greater number of species (Paszkowski & Tonn, 2000). As more microhabitats are provided, more niches are made available for more bird species thus, creating more foraging, nesting sites and materials, by so doing, reducing the competition for limited space. With reduced competition, fitness is improved in the bird species and thus, leading to increased abundance. Also, pond size did not significantly predict bird diversity. However, as the pond size increased, bird diversity increased slightly which is probably because the larger ponds provide more space, so that more kinds of birds can tolerate being in the same area hence increase in bird species diversity (Single 2004). Also, with larger pond sizes, more niches are created allowing for bird species to have their preferred microhabitats and by so doing increasing species diversity.

4.1.2 The effects of vegetation variables on the abundance and diversity of bird species

Bird species were found to utilize the different ponds in the Rennajj fish farm/Eden Creation Care Initiative widely for nesting, foraging and roosting on the emergent and fringe vegetation (Kumar and Gupta, 2009). Birds select vegetation variable based on how the habitat influence its access to food, mates or its vulnerability to predators (Manu, 2003). Trees, shrubs, saplings, and vegetation on the water were significant predictors of bird abundance.

Trees and vegetation on water predicted bird abundance negatively. Some birds may use trees as roosting site, hence, as the number of trees increases, the bird abundance will decrease as most bird species will be involved in other activities. Vegetation on water provides food as well as cover from predators for birds such as the white-faced whistling duck. The decrease in bird abundance when vegetation cover increase may also be that birds prefer to feed on quality food.

Shrubs and saplings however, positively predicted bird abundance in that, as the number of shrubs and saplings increased, bird abundance also increased. Shrubs and saplings may not only serve as roosting sites to bird species but can also serve as foraging grounds and nesting sites with additional advantage to provide nesting material depending on the bird species.

Vegetation on the water significantly predicted bird diversity negatively. Pond 1 and 9 are wide, densely populated with macrophytes- submerged, floating and emergent, which reduces available space to be utilized by the bird species. These ponds also have thick vegetation almost surrounding them and a patch of Eucalyptus species at the edge of the water and these were the only ponds where Sedge Warblers (*Acrocephalus schoenobaenus*) were recorded.

4.1.3 The effects of pond depth on the abundance and diversity of bird species

The results have shown that pond depth did not significantly predict bird abundance but on the other hand positively predicted bird diversity significantly. Also, bird abundance slightly increases as pond depth increases. The results are also in agreement with previous research (Green, 1998; Kreakie et al., 2012; Sebastián-Gonzaléz et al., 2013). The depth of the pond may provide more foraging sites, for bird species. This provision may act to boost fitness, thus increasing the abundance of bird species. The varying pond depth increases diversity of species as it provides more niches that supports various bird species. It is worth noting that pond depth is highly influenced by the local hydroperiods. Certain bird species may prefer shallow waters while others such as divers may prefer deep waters. Sebastián-Gonzaléz and Green (2014) revealed that, shallower ponds supported small-sized species probably because they required shallower water to feed. As pond depth increases, it provides niches that meets the requirement of various feeding guilds of wetland birds thus, increasing the avian diversity.

4.2 Conclusion and Recommendations

This study has shown that pond sizes, similar to forest patch sizes affect bird abundance and diversity as birds will prefer to minimize the costs involved in competing for space and other resources that come with it; vegetation characteristics effect abundance of birds. Pond depth has a slight positive effects on avifauna abundance as well.

Conservationists must step up their efforts to ensure their inclusion into government policies and projects especially those that pose as threats to wetlands and any site of biodiversity conservation with full enactment of such policies. Conservation-based fish farming strategies should be advocated as this will be beneficial to both humans and avifauna that utilize the wetlands. Pond sizes and depth should be considered in such farms during the pond design to ensure that it is both beneficial to man and biodiversity. Proper management of wetlands can provide suitable habitats for waterbirds and other bird species and reduce the adverse effects of wetland loss and degradation.

Finally, seasonal variation studies should be done to investigate the effects of pond sizes on the species diversity and abundance of bird species at the Rennajj fish farm/Eden Creation Care Initiative to understand what impacts seasons may have on the bird species that use this region as this research was carried out during the rainy season only.

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Appendix

Appendix 1: Checklist of Bird Species Recorded at Rennajj Fish Farm/Eden Creation Care Initiative

Bird species	Scientific name	Family	Rank	Abundance
White-faced whistling duck	*Dendrocygna viduata*	Anatidea	1	1288
Village weaver	*Ploceus cucullatus*	Ploceidae	2	372
Northern red bishop	*Euplectes axillaris*	Ploceidae	3	245
African jacana	*Actophilornis africanus*	Jacanidae	4	181
Malachite kingfisher	*Corythornis leucogaster*	Alcedinidae	5	96
Adamawa turtle dove	*Streptopelia hypopyrrha*	Columbidae	6	86
Common bulbul	*Pycnonotus barbatus*	Pycnonotidae	7	84
Spur-winged lapwing	*Vanellus spinosus*	Charadriidae	8	77
Laughing dove	*Streptopelia senegalensis*	Columbidae	9	61
Common sandpiper	*Actitis hypoleucos*	Scolopacidae	10	56
Long-tailed cormorant	*Microcarbo africanus*	Phalacrocoracidae	11	54
Hamerkop	*Scopus umbretta*	Scopidae	12	47
Pied kingfisher	*Ceryle rudis*	Alcedinidae	13	47
Sedge warbler	*Acrocephalus paludicola*	Acrocephalidae	14	44
Winding cisticola	*Cisticola galactotes*	Cisticolidae	15	37
Red-cheeked cordon-bleu	*Uraeginthus bengalus*	Estrildidae	16	33
Great egret	*Ardea alba*	Ardeidae	17	32
Grey heron	*Ardea cinerea*	Ardeidae	18	31
Double-spurred francolin	*Pternistis bicalcaratus*	Phasianidae	19	29
Lesser moorhen	*Gallinule chloropus*	Rallidae	20	28
Common sand martin	*Ripariacongica*	Hirundinidae	21	24
Cattle egret	*Bubulcus ibis*	Ardeidae	22	21
Yellow crown gonolek	*Laniarius barbarous*	Malaconotidae	23	21
Lesser striped swallow	*Cecropis abyssinica*	Hirundinidae	24	20
Little weaver	*Ploceus luteolus*	Ploceidae	25	19
Black crake	*Zapornia flavirostra*	Rallidae	26	16
Pied flycatcher	*Ficedula hypoleuca*	Muscicapidae	27	16
Purple glossy starling	*Lamprotornis purpureus*	Sturnidae	28	16
Intermediate egret	*Ardea intermedia*	Ardeidae	29	15
Little egret	*Egretta garzette*	Ardeidae	30	15
Vinaceous dove	*Streptopelia decipiens*	Columbidae	31	14
Willow warbler	*Phylloscopus trochilus*	Locustellidae	32	14
Blue-breasted kingfisher	*Halcyon malimbica*	Alcedinidae	33	13
Little grebe	*Tachybaptus ruficollis*	Podicipedidae	34	13
Speckled pigeon	*Columba guinea*	Columbidae	35	13
Piapiac	*Ptilostomus afer*	Dicruridae	36	12
Pied crow	*Corvus albus*	Corvidae	37	11
Singing cisticola	*Cistcola cantans*	Cisticolidae	38	11
Red-billed fire finch	*Lagonosticta senegala*	Estrildidae	39	10
Western grey plantain eater	*Crinifer piscator*	Musophagidae	40	10
Red-necked falcon	*Falco chicquera*	Falconidae	41	9

APPENDIX 2: STATISTICS SUMMARY TABLES

Table 5: Generalized Linear Model showing the effect of pond depth on bird abundance

Variable	**Estimate**	**SE**	**z**	**P**
(Intercept)	2.60	0.08	30.81	**<0.01**
Pond depth	0.0001	0.00	0.30	0.762

Results are presented on a log scale. Significant relationships are highlighted in bold

Table 2: Linear Model showing the effect of pond size on bird diversity

Variable	**Estimate**	**SE**	**T**	**P**
(Intercept)	1.09	0.08	14.51	< **0.001**
Pond size	0.02	0.02	0.91	0.37

Adjusted R^2 = -0.0005; $F_{1, 368}$ = 0.8205

Table 4: Linear model showing the effects of vegetation parameters on bird diversity

	Estimate	**SE**	**t**	**p**
(Intercept)	1.569	0.059	26.43	< **0.001**
Vegetation on the water	-0.008	0.001	-7.52	< **0.001**

Adjusted $R^2 = 0.13$; $F_{1, 368} = 56.53$; Significant relationships are highlighted in bold fonts

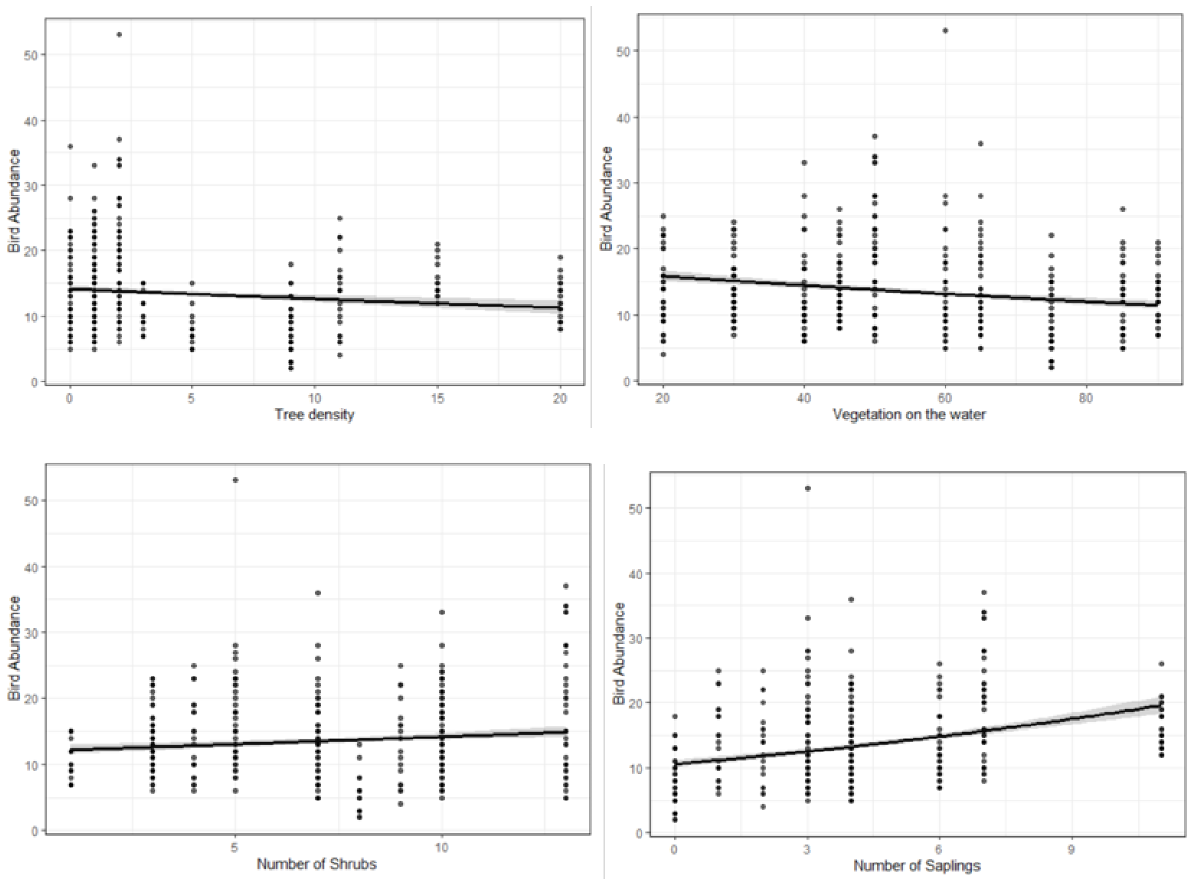

Figure 5: Relationship between vegetation parameters and bird abundance

Table 6: Linear Model showing the effect of pond depth on bird diversity.

Variable	Estimate	SE	t	P
(Intercept)	0.904	0.140	6.46	**< 0.001**
Pond depth	0.001	0.001	1.81	0.07

Adjusted $R^2 = 0.006$; $F_{1, 368} = 3.269$

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