

# African Bird Club Final Report

## The White-winged Flufftail Conservation Project

October 2023  
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**AFRICAN BIRD CLUB**

## Introduction

The White-winged Flufftail (*Sarothrura ayresi*) is listed as a globally Critically Endangered bird endemic to Africa. It is considered one of the rarest and most threatened waterbird species on the continent. The total global population is estimated at no more than 250 breeding adults. Ethiopia and, more recently, South Africa are the only two countries where White-winged Flufftail are known to breed. The White-winged Flufftail is a wetland specialist preferring healthy, intact, dense sedge habitat. Population abundances and distributions have likely decreased over the years due to wetland destruction and degradation by various anthropogenic activities such as mining and agriculture. Little was done to conserve the species in South Africa until 1994 when a group of citizen scientists formed the Middelpunt Wetland Trust to safeguard the only known site where the bird was regularly seen. BirdLife South Africa began administering the trust in 2012 and has since then made leaps in studying and understanding the ecology of this cryptic bird. The project is now in the phase of implementing conservation tools at a local scale through applied research and adaptive management. The main objectives of BirdLife South Africa’s White-winged Flufftail Conservation Project are to: (1) reduce uncertainty about White-winged Flufftail biology to better inform conservation efforts; (2) manage, rehabilitate, protect, steward and safeguard, through policy and advocacy, White-winged Flufftail wetland habitat across private and public sectors; and (3) raise awareness about water issues across socio-economic classes by using the White-winged Flufftail as an ambassador of wetland conservation. By protecting and promoting healthy wetlands for White-winged Flufftail, intact habitat is preserved for other wildlife species as well as the ecosystem services that people derive from wetlands. Our work is supported by the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) and is guided by the AEWA White-winged Flufftail International Working Group Implementation Plan for 2020-2023. BirdLife South Africa is grateful to the funders who have supported the project over this time. We have detailed the progress made over the reporting period of October 2022 to September 2023.

## REPORT AGAINST PLANNED ACTIVITIES

Theme	Objectives	Activity	Progress
<b>1. Research</b>			
<b>a) Population demography</b>	Monitor changes in White-winged Flufftail population abundance at long-term monitoring sites using the BirdLife South Africa (BLSA) Rallid Survey Method.	Deploy and service motion-detected camera traps at Middelpunt Nature Reserve and Verloren Valei Nature Reserve for the duration of the breeding season. Collect explanatory variables.	Completed monitoring between November 2022 and March 2023, thus concluding three breeding seasons of data collection at the same three transects (4.81 TB of images).

	Estimate the home range of White-winged Flufftail using acoustic triangulation to extrapolate density from the Habitat Suitability Model developed for South Africa.	Deploy an acoustic array (15 devices) at Middelpunt Wetland during the peak breeding season.	Deployed acoustic devices and collected data from December 2022 to January 2023.
<b>b) Distribution</b>	Survey wetlands within South Africa using acoustic devices.	Survey wetlands identified by the Habitat Suitability Model in southern KwaZulu-Natal Province during the peak breeding season. Collect explanatory variables.	Surveyed eight wetlands with 15 acoustic devices on private and state-owned land, thus concluding three seasons of data collection along the Eastern Escarpment of South Africa (7.3 TB of recordings).
		Trial environmental DNA at a known breeding site to determine if the methodology is suitable for detecting White-winged Flufftail at its hypothesised overwintering grounds.	Collected water samples at four sites where White-winged Flufftail were heard calling, but the species was not detected following analysis by NatureMetrics. Sampling methodology will be refined and trialled again using a different service provider.
<b>c) Breeding biology</b>	Monitor changes in the timing (phenology) of breeding activity using acoustic devices.	Monitor acoustic activity patterns at the long-term monitoring sites for the duration of the breeding season.	Recorded soundscape continuously from November 2022 to March 2023.
	Observe breeding behaviour using artificial stimuli.	Deploy mirrors at motion-detected camera traps at the three long-term monitoring sites during the peak breeding season.	Deployed two mirrors at each monitoring site from December 2022 to February 2023.

<b>d) Physiology</b>	Describe the climatic envelope occupied by the White-winged Flufftail at breeding sites.	Deploy temperature iButtons and black bulbs at the three long-term monitoring sites for the duration of the breeding season.	Deployed loggers accordingly.
<b>f) Phylogeny</b>	Establish Flufftail ( <i>Sarothrura</i> ) phylogeny.	Supplement an on-going study by measuring the morphometrics of adult museum specimens (skins) of all flufftail species.	Measured all flufftail specimens at the Natural History Museum of Zimbabwe (39 specimens), including <i>S. affinis</i> Striped Flufftail (3), <i>S. rufa</i> Red-chested Flufftail (7), <i>S. boehmi</i> Streaky-breasted Flufftail (17), <i>S. insularis</i> Madagascar Flufftail (2), <i>S. pulchra</i> White-spotted Flufftail (6) and <i>S. lugens</i> Chestnut-headed Flufftail (4).
<b>g) Habitat requirements</b>	Identify community-level drivers of wetland habitat required by White-winged Flufftail.	Deploy monitoring equipment at study sites to determine the faunal and floral species composition and diversity associated with White-winged Flufftail. Outsource small mammal, invertebrate and vegetation studies through university collaborations.	Presented at a lab visit to the University of the Free State (UFS) and held a meeting with University of Pretoria collaborators to discuss projects. Identified a suitable candidate and assisted with their National Research Foundation funding application for a study exploring high-elevation wetland vegetation and invertebrate phenology. Student to register at UFS and commence MSc in 2024.
<b>h) Scientific output</b>	Disseminate research results through standard scientific platforms.	Attend at least one conference and publish any synthesised results.	Presented at the Pan-African Ornithological Conference (BirdLife Zimbabwe, Victoria Falls, November 2022), the Biodiversity Climate-Nexus for Wetlands Management

			<p>(Agricultural Research Council, virtual, July 2023) and the National Wetlands Indaba (Southern African Wetland Society, Buffelspoort, October 2023). A supervised MSc paper surveying the avifaunal community of a high-elevation wetland was accepted for publication. Assisted with organising the 6th Learn About Birds (LAB) Conference. Joined as a collaborator on the Worldwide Soundscapes project, a study appraising acoustic studies across the world.</p>
<b>2. Conservation</b>			
<b>a) Wetland management</b>	Develop <i>Best Practice Guidelines for High-Elevation Wetland and Peatland Management in Southern Africa</i> .	Secure co-authors and write the first draft.	Completed additional upskilling courses in wetland abiotic factors (WetResT) and vegetation (SACNASP-SAWS CMP). Identified co-authors and an illustrator and signed a Memorandum of Agreement with each. Currently drafting guidelines which will be followed by illustrations, peer-review, certification, translations and publication.
	Review the life history of birds in southern Africa that breed and forage in inland wetlands to help inform habitat management guidelines.	Conduct literature review.	Confirmed candidate species list confirmed with inputs from experts. Currently finding the life history attributes for each species.

	Evaluate the effectiveness of a wildlife-friendly fence design to prevent livestock trampling and overgrazing wetlands.	Service monitoring equipment on the wildlife-friendly fence and a standard cattle fence (control) for one year.	Serviced camera traps every second month from December 2022 and will conclude in March 2024. Repairs completed by local contractor.
	Monitor the biotic response to a planned cool fire (early spring) to remove moribund material while preventing damage to the sensitive peat and vegetation layer.	Deploy monitoring equipment and measure environmental variables for the duration of the growing season.	Deployed and serviced camera traps and acoustic devices from November 2022 to March 2023. Measured environmental variables monthly.
<b>b) Wetland rehabilitation</b>	Attract wetland rehabilitation implementors to key White-winged Flufftail sites.	Identify sites and appeal to national programmes (e.g., Working for Wetlands) and wetland offsets.	Recommended sites to Working for Programmes in the White-winged Flufftail Wetland Priority List. Submitted two applications with budgets to consultants of large industrial corporations for wetland offsets. One application was declined and the other is pending.
<b>c) Wetland protection</b>	Declare the Tim Tilden-Davis Nature Reserve, a private property forming a habitat corridor between larger private and state-owned (with White-winged Flufftail present) nature reserves.	Conduct the site assessment and facilitate other legal documents for Mpumalanga Tourism and Parks Agency (MTPA).	Completed and submitted the site assessment to MTPA. Facilitated communication between the landowner and MTPA about the required legal documents.

	<p>Assist MTPA and the Department of Forestry, Fisheries, and the Environment (DFFE) with the designation of Middelpunt Nature Reserve as a Ramsar Site, the only confirmed breeding site of White-winged Flufftail in South Africa.</p>	<p>Provide inputs as needed.</p>	<p>Added content to the Ramsar Information Sheet and provided supporting documents. Attended a meeting with government and the management authority to discuss the objectives of the Ramsar Site. Middelpunt Nature Reserve Ramsar Site was designated on 15 March 2023. Designed a Ramsar signboard for the management authority to erect at the reserve. Prepared and hosted a celebratory dinner for the management authority, provincial government and Middelpunt Wetland Trust.</p>
	<p>Assist MTPA with the expansion of the Greater Lakenvlei Protected Environment (GLPE) to safeguard more of the expansive wetland network used by White-winged Flufftail in the Steenkampsberg.</p>	<p>Assist as needed.</p>	<p>Developed an online letter of support for members of the public to sign during the public participation phase and actively communicated this through BLSA media platforms. 415 letters were received and submitted to MTPA. The GLPE was expanded by over 7,400 ha on 1 September 2023. Presented at the GLPE AGM and sent welcoming letters to the new landowners.</p>



<b>d) Wetland stewardship</b>	Develop avitourism in the Steenkampsberg to create a financial incentive for landowners to conserve biodiversity.	Launch the Steenkampsberg Birding Routes in collaboration with the Escarpment Bird Club, including a dedicated webpage and QR code linked signboards.	Finalised the <a href="#">webpage</a> and filmed a <a href="#">short video</a> about the routes. Erected the remaining signboards and serviced exiting signboards. Launched routes through BLSA media platforms, including <a href="#">Conservation Conversations</a> , <i>African Birdlife</i> , newsletters, social media, etc. Thanked and acknowledged local sponsors. Number of signboard QR scans for 2023:  Jan-March - 101 April-June - 77 July-Sept - 247 Oct - 37 <b>Total - 462</b>
	Develop a management plan for Middelpunt Nature Reserve and organise the AGM for the management authority.	Complete the management plan with inputs from MTPA and the management authority. Facilitate the public participation process. Coordinate and participate in the AGM.	Nearly completed the final management plan which will be submitted to MTPA for MEC approval. Incorporated inputs from experts and stakeholders following several meetings. Facilitated the public participation process by directly sending the management plan to identified interested and affected parties with a 60-day commenting period. Established an online repository archiving documents for the management authority. Organised the meeting date and agenda for the AGM and participated as needed.
	Update the White-winged Flufftail Wetland Priority List	List wetlands with recent White-winged Flufftail records, the proposed	Updated and presented the list to stakeholders at the WwF NWG annual meeting.



	for the DFFE White-winged Flufftail National Working Group (WwF NWG).	activities to improve the conservation status of these sites and the parties responsible for implementation.	Held prior meeting with DFFE Water Sources and Wetland Conservation for inputs.
	Implement aspects of the Ntsikeni Nature Reserve Community Project to promote the conservation of Ntsikeni Vlei by addressing issues related to eco-tourism, habitat restoration and reserve infrastructure.	Develop a flyer and webpage to promote tourism, list maintenance issues at Ntsikeni Lodge, create a comprehensive bird list, attend meetings with Ezemvelo KZN Wildlife, develop a work plan and manage community bird guide, Dalu Ngcobo, (monitoring, biosecurity, fieldwork) and assist the BLSA Empowering People Programme Manager where needed (focussing on aspects within the community neighbouring of the reserve).	Published flyer and <a href="#">webpage</a> , completed maintenance list and shared with groups expressing interest in repairing the lodge (e.g., BirdLife Sani), uploaded the bird list onto the webpage, attended meetings but EKZNW have not been able to join, developed work plan for Dalu Ngcobo and managed remotely having received two monthly bird monitoring transects since January 2023, and assisted the BLSA Empowering People Programme through meetings and emails.
<b>e) Wetland policy and advocacy</b>	Assist the BLSA Policy & Advocacy Programme with identifying and commenting on development applications that could negatively impact White-winged Flufftail.	Monitor, identify and report threats to relevant parties. Provide comments on applications, appeals, reviews and at public meetings using the appropriate legislation.	Assisted BLSA Policy and Advocacy Programme by providing comments and organising meetings with specialists to appeal the William Patrick Bower Colliery Water Use License Renewal Application (WULA). The WULA was granted, but the decision has been appealed by the GLPE Landowners Association with inputs from BLSA. Submitted objections to a coal prospecting application within the GLPE and has since withdrawn. Ibhubesi Ore adjacent to Middelpunt

			<p>Nature Reserve has not commenced with rehabilitation of the prospecting pit. Water samples were collected from Middelpunt Wetland to determine if the prospecting pit was having negative downstream effects on the system, but no evidence was found. Provided comments on the proposed Dulmanutha Wind Energy Facility south of the GLPE and has since withdrawn. Participated in a stakeholder meeting to discuss the proposed Leghoya Wind Farms situated near Chrissiesmeer, a vast pan-wetland system.</p>
	<p>Advocate for White-winged Flufftail conservation at stakeholder meetings and in public reports.</p>	<p>Attend, present and participate in all relevant meetings and reports.</p>	<p>Presented and helped prepare the WwF NWG annual meeting (DFFE, virtual, August 2023). Presented at the Mpumalanga Biodiversity Stewardship Forum (MTPA, Kaapsehoop, May 2023). Participated in a biodiversity stewardship workshop (BLSA-Conservation Outcomes, Overberg, May 2023). Drafted the DFFE WwF NWG annual report for 2023.</p>

<b>f) Wetland awareness</b>	Develop two children's books to raise awareness about White-winged Flufftail and wetlands.	Identify volunteer authors and illustrators and oversee the development of the stories.	Secured authors and illustrators and hosted regular meetings to discuss progress. Developed initial concepts and objectives. Commented on manuscripts and draft illustrations. A volunteer graphic designer will assemble the generated contents into two books for different age groups.
	Develop a short video about burning wetlands with a cool fire to encourage adoption by management authorities and landowners.	Provide the BLSA Communication Team with media content.	Recorded short clips and photos during and after a planned fire over a four-month period. Shared media resources with the BLSA Communications Team accompanied with meetings for direction. The film is nearly completed following some final edits.
	Create awareness about the natural environment and conservation through avitourism in the Steenkampsberg.	Develop information resources housed on the dedicated Steenkampsberg Birding Routes webpage.	Specialists drafted manuscripts and species lists about various aspects of the natural environment. These were edited and a volunteer graphic designer formatted the articles for a professional layout. All articles were completed and uploaded onto the <a href="#">webpage</a> .

## MEDIA COVERAGE

Social media publications can be found in BirdLife South Africa's [Facebook page](#), [e-newsletters](#), and [African Birdlife magazine](#) (January/February and July/August 2023 issues).

Two media releases were prepared and published on the BLSA website over the reporting period:

1. [Middelpunt Nature Reserve Ramsar designation](#)
2. [Greater Lakenvlei Protected Environment expansion](#)

Dr Kyle Lloyd was interviewed for [Radio 702](#) and Radio Islam International, and provided inputs on several news articles.

Dr Kyle Lloyd was the recipient of the [Mail & Guardian Greening the Future Awards: Preservation of Natural Habitats 2022](#).

## FUND RAISING

Much effort was made to raise sufficient funds for a project officer to implement conservation projects in the Steenkampsberg and provide post-declaration support to management authorities and landowners. Unfortunately, the outcome of most of these applications is still pending.

Application	Date	Outcome
Fencit	October 2022	Donation
Department of Forestry, Fisheries, and the Environment (tender)	October 2022	Unsuccessful
Jones and Wagener	October 2022	Donation
BirdLife International (Rockjumper Birding Tours): Preventing Extinctions Programme	December 2023	Donation
Eskom (tender)	December 2023	Successful
Jonathan Clark	March 2023	Donation
British Ecological Society Outreach Grant	March 2023	Unsuccessful
ZEISS	April 2023	Donation
John Bradshaw	May 2023	Donation
Indianapolis Zoo Saving Species Challenge (Round 1)	June 2023	Successful
Cultivo-Rio Tinto: BirdLife Carbon Portfolio for Grasslands	July 2023	Unsuccessful
The Mackenzie Foundation	August 2023	Donation
BirdLife International (Rockjumper Birding Tours): Preventing Extinctions Programme	August 2023	Successful
Department of Forestry, Fisheries, and the Environment (tender)	August 2023	Pending
Future for Nature Award	August 2023	Pending
Buttonslope Conservancy Trust	August 2023	Pending
Assore	August 2023	Pending
Bickel Conservation	September 2023	Donation
Eric Hosking Trust	September 2023	Pending
Whiskey Distillery	October 2023	Pending
Rockjumper Birding Tours: Kruger Bird and Wildlife Challenge	October 2023	Donation
Rainforest Trust	November 2023	To submit
The Mackenzie Foundation	November 2023	Donation
Indianapolis Zoo Saving Species Challenge (Round 2)	December 2023	To submit