

**BIRDLIFE SOUTH AFRICA**

**White-winged Flufftail Conservation Report**

*for African Bird Club*

**2014**

**Saving the world's rarest flufftail**

The White-winged Flufftail *Sarothrura ayresi* is only known to occur in the highland marshes near Addis Ababa in Ethiopia and almost 4000 km to the south in South Africa (Figure 1). First described in 1877 from Potchefstroom, the knowledge gained about this bird has in the ensuing 136 years been minimal. It is severely threatened by habitat destruction, especially from commercial afforestation, mining activities, damming, draining and overgrazing and is believed to be undergoing a continuing decline. The enigmatic White-winged Flufftail is globally listed as *Critically Endangered* and considered to be on the brink of extinction. The species will retain its *Critically Endangered* status in the 2014 revision of *The Eskom Red Data Book of Birds of South Africa, Lesotho and Swaziland*.



**Figure 1:** Distribution map of White-winged Flufftail.

BirdLife South Africa and the Middelpunt Wetland Trust have initiated a number of projects since 2012. The aim of these projects is to unravel the mysteries of the species' biology and understanding

what conservation action is required. This work has been sponsored by a number of donors, including the African Bird Club and Eskom, which is the BirdLife International Species Champion.



**Figure 2:** White-winged Flufftail in flight in Berga wetland, Ethiopia. Photo: Miona Janeke

### **1. Uplisted to Critically Endangered**

The current estimate of the global population of the White-winged Flufftail is less than 250 birds, with only about 50 birds in South Africa, making this species the world's rarest flufftail. During 2013, this species was uplisted by the IUCN to globally Critically Endangered, one level from extinct in the wild. It is the second bird species to be listed as globally Critically Endangered in South Africa. BirdLife South Africa and the Middelpunt Wetland Trust initiated the uplisting with support from the Ethiopian Wildlife and Natural History Society. BirdLife International announced the uplisting as accepted by the IUCN in November 2013.

### **2. South African wetland surveys**

In South Africa the species has been recorded from 15 sites, although several of the records are vague. The sites where the flufftail has been "regularly" recorded are at Middelpunt (near Belfast), at Wakkerstroom (Mpumalanga) and at Franklin Marsh (KwaZulu-Natal).

To provide information which will contribute to the protection of the flufftail's preferred habitat, we urgently needed to understand more about the species' habitat requirements. With this in mind, Greg Davies, ornithologist at the Ditsong National Museum of Natural History, Pretoria, South Africa, was contracted by BirdLife South Africa to undertake surveys of the high-altitude marshes in Mpumalanga, Free State, Eastern Cape and KwaZulu-Natal over the 2013–14 summer to determine the quality of known habitat and to identify other suitable habitat for this rare species. Greg flushed a White-winged Flufftail at Middelpunt Wetland near Dullstroom, Mpumalanga, in December 2013. No other White-winged Flufftails were recorded during his fieldwork over the summer season of 2013/2014.

Greg's findings have been documented in four reports (one for each of the four areas visited) across the flufftail's distribution in South Africa. Two scientific articles are currently being drafted, of which one will focus on White-winged Flufftail sightings during the past nine years (i.e. since the last formal publication by Taylor in 2005 on the species distribution and status in South Africa). All of these records are for the period between September and March, as no White-winged Flufftails have been recorded during the austral winter (April-August) in South Africa. Most sightings concerned one flufftail and never more than four birds at any particular wetland.

The second scientific article by Davies *et al.* is relevant to general high-altitude vlei waterbird ecology and will describe the habitat quality of the wetlands surveyed. This is of importance for the habitat management of these wetlands, of which some are Important Bird and Biodiversity Areas (IBAs).

Other pertinent work to be undertaken includes surveys of coastal wetlands, as a White-winged Flufftail was recently sighted at a low-altitude wetland at King Shaka International Airport, Durban, by Marius van Rooyen during September 2013. In his 1906 publication "The birds of South Africa, Volume 4", Sclater wrote that a certain A. Millar informed him that the White-winged Flufftail, then known as the White-winged Crake, was to be found in the vleis around Durban. Sclater continues to state that this is one of the rarest of South African birds. In 2003, Barry Taylor described the only other record of White-winged Flufftail in coastal wetlands, at Mfabeni, St Lucia, KwaZulu-Natal. After more than 100 years without any new confirmed sightings, scientists started to question the records of White-winged Flufftail found in the vleis around Durban. The observations of Millar were, however, confirmed on Thursday 5 September 2013 when Marius van Rooyen, Senior Wildlife Control Officer at King Shaka International Airport located a flufftail at the airport. This sighting highlights our limited understanding of movements and habitat requirements of the species.



**Figure 3:** White-winged Flufftail trapped at Middelpunt wetland, Mpumalanga, South Africa, in February 2014. Photo: Niall Perrins.

### 3. Genetic and isotope analyses

To shed light on the migratory connection between South Africa and Ethiopia, genetic and isotopic analyses are currently under way. The DNA analyses are being done in collaboration with Professor Antoinette Kotzé and her team at the National Zoological Gardens, Pretoria, South Africa, and the isotopic studies with Professor Craig Symes at the University of the Witwatersrand, South Africa.

The BirdLife South Africa research team collected blood and feather samples from seven flufftails in Ethiopia in August 2013, in collaboration with our Ethiopian colleagues, the Ethiopian Wildlife and Natural History Society.

During the past season, the fresh material from South African birds has increased from zero to three specimens. A male White-winged Flufftail was captured in a mistnet at Wakkerstroom, Mpumalanga, by Dirk van Stuyvenberg in January. Another bird, an immature individual, was trapped by the research team, in particular by Dr Brett Gardner, Craig Natrass and Selwyn Rautenbach, at Middelpunt Wetland, Mpumalanga, in February. In addition, material from a bird that collided with a powerline at 15 km north of Kokstad, East Griqualand, KwaZulu-Natal in the early 2000s was obtained from Dr Barry Taylor.

Preliminary genetic and isotope results confirm that the Ethiopian and South African specimens represent a single species. Fine-scale population analyses will only be available later in 2014. The genetic studies form part of a PhD on “Flufftail phylogenetic relationships and population analyses of White-winged Flufftail” by Zelda du Toit, National Zoological Gardens, Pretoria.



**Figure 4:** A White-winged Flufftail that was trapped, sampled and photographed at Berga wetland, Ethiopia. Photos: Miona Janeke.

*Trip to Ethiopia, genetic and isotope analyses*

The White-winged Flufftail research team visited Berga and Weserbi wetlands in Ethiopia during the first week of August 2013. The necessary permits were secured from the Ethiopian Wildlife Conservation Authority, Ethiopia, and Department of Environmental Affairs, South Africa, for trapping, exporting and importing the White-winged Flufftail blood and feather samples. The samples collected during the recent trip will be used in genetic and isotope analyses to help us understand whether the birds move between Ethiopia and South Africa or whether the two populations are isolated.

The scientific team managed to take blood and feather samples for genetic and isotope studies from seven White-winged Flufftail in Berga wetland, Ethiopia. The team was accompanied by staff from the Ethiopian Wildlife and Natural History Society (EWNHS) as well as the Ethiopian Wildlife Conservation Authority (EWCA).

Malcolm Drummond and Hanneline Smit-Robinson, both trustees of the Middelpunt Wetland Trust, also paid a visit to the local “flufftail” school and community leaders at Berga. The school has been built with funds provided by the Middelpunt Wetland Trust during the past ten years.



**Figure 5:** Middelpunt Wetland Trustees visiting the local school and Site Support Group at Berga in Ethiopia. Photo: Miona Janeke.



**Figure 6:** White-winged Flufftail research team including collaborators from the Ethiopian Wildlife and Natural History Society, Ethiopian Wildlife Conservation Authority, the Berga Site Support Group, University of Witwatersrand and Johannesburg Zoo. Photo: Miona Janeke.

### **Planned Flufftail research facility at the National Zoological Gardens, Pretoria**

The goal of this aspect of the work on White-winged Flufftails is to construct a research facility for captive flufftails in order to learn about their biology and behaviour. This research facility will thus initially be used for research purposes, but also to raise awareness about the conservation of flufftails and wetlands. Initially the research facility will be for Red-chested Flufftails only (it is a species which is closely related to the White-winged Flufftail). White-winged Flufftail eggs will be sourced for the research facility under the necessary permits and conditions, but only once Red-chested Flufftails have successfully laid eggs in the research facility. A captive population of White-winged Flufftail will be established and behavioural studies will be undertaken.

### **Project Collaborators:**

- National Zoological Gardens
- BirdLife South Africa
- Middelpunt Wetland Trust
- University of Pretoria: Research on behaviour and other unknown aspects of the birds to be done in collaboration with Prof. Andrew McKechnie and his students.

A final site has been selected at the National Zoological Gardens in Pretoria and construction will commence soon, sponsored by Pace Construction. The building plans were completed by landscape architects Mark Young and Gareth Leonard from Landmark Studios International as well as Arno Ellmer and Andy Featherstone, with input from Colin Wintle who bred flufftails, rails and crakes successfully in Zimbabwe many years ago. Once construction of the facility has been completed, the wetland area and a natural insect population will be established, prior to collecting Red-chested Flufftails from the wild to keep in the research facility.

## Publicity

Footage from the trip to Ethiopia was broadcast on 30 September 2013 by the South African environmental TV programme 50/50 and a documentary on White-winged Flufftail research in South Africa was filmed by Rob Waldron.

Various radio interviews and presentations to a range of audiences resulted from the focus on the White-winged Flufftail during 2013.

Press releases included:

- Conserving the world's rarest Flufftail, 27 August 2013.
- Bird of the Year flies into King Shaka International Airport, 11 September 2013.
- South African flufftail on brink of extinction, 28 November 2013.

A poster was presented at the 4<sup>th</sup> Annual Diamond Route De Beers Conference on 29 and 30 October 2013.

A brochure and an hourglass poster on White-winged Flufftail were designed and printed. Both these products were on display at the BirdLife International World Congress Partnership Fair in Ottawa, Canada, and brochures were made available at the annual BirdLife South Africa Sasol Bird Fair.



**Figure 7:** White-winged Flufftail hourglass poster which was displayed at the BirdLife World Congress in Canada.

## Acknowledgements

The White-winged Flufftail research work is funded by a number of generous donors and supporters. Particular thanks are due to the African Bird Club, Eskom, the BirdLife International Species Champion and the Ingula Partnership. The project continues to benefit from the assistance and support from a number of collaborating individuals, companies, institutes/departments and organizations.

### **About the organisations involved**

BirdLife South Africa is an environmental NGO and part of the BirdLife International Partnership. BirdLife South Africa is a registered non-profit (001-298 NPO), public benefit organization (930 004 518). It is the only dedicated bird-conservation organization in South Africa. It has around 6,000 members in 40 bird clubs and 29 staff members based throughout South Africa. The organisation's head office is in Johannesburg, and its website is <http://www.birdlife.org.za>.

This project is managed by the Terrestrial Bird Programme Conservation Manager (Dr Hanneline Smit-Robinson) with input from BirdLife South Africa's Chief Executive Officer (Mark Anderson) and Trustees of Middelpunt Wetland Trust, now incorporated into BirdLife South Africa (Malcolm Drummond, Warwick Tarboton and Roger Wanless). The Middelpunt Wetland Trust was established in 1994 with the sole objective of research and conservation of the White-winged Flufftail.

Other project partners within South Africa include colleagues from the National Zoological Gardens (lead: Prof Antoinette Kotzé), Prof Craig Symes from the University of Witwatersrand, Greg Davies from the Ditsong National Museum of Natural History and Dr Brett Gardner, veterinarian at the Johannesburg Zoo.

The partner organization in Ethiopia is the Ethiopian Wildlife and Natural History Society (EWNHS) (see attached letter), based in the capital Addis Ababa. Founded in 1966, it has approximately 450 members and 17 staff. Its website is <http://www.ewnhs.org.et/>.