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Elegant/Sandwich tern hybrid - Cape Recife, Port Elizabeth (The French Connection)

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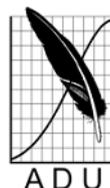
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Brendan O'Connell

Researchers studying global migrants, such as the elegant tern (*Thalasseus elegans*) and Sandwich tern (*Thalasseus sandvicensis*), are dependent on feedback. This can be as result of recapture by a fellow ringer or the public reporting on dead birds. This case is an example of how colour-ringing methods have the potential to provide a research team with additional information during the life-span of the bird, whilst providing opportunity for birders globally to contribute as Citizen Scientists. These 'Sea Swallows', as they cross continents, provide a vital link for us, and illustrate the need for us to work together by highlighting our global inter-connectivity.

Keywords: colour-ringing

On the 21st December 2018, whilst observing a group of terns at Cape Recife, Port Elizabeth, South Africa, I noticed that one of the Sandwich terns (*Thalasseus sandvicensis*) had a large down-curved bill, predominantly yellow in colour with a mid-section of both upper and lower mandibles showing a dark blackish/grey smudge.

The "Mystery Tern" had joined a group of terns at low tide in the intertidal zone in front of Cape Recife Lighthouse (34.028979°S, 25.700626°E) comprising of a mix of Sandwich, roseate (*Sterna dougalli*), swift (greater crested) (*Thalasseus bergii*) and common (*Sterna hirundo*) terns and as I watched them, my focus shifted to another tern - with an all yellow bill - as it slowly frog-marched to the front of the group. The bird was almost half the size of its swift tern neighbours and I quickly concluded that this tern could be a lesser crested tern (*Thalasseus bengalensis*) - uncommon for this part of the Eastern Cape but far less interesting in comparison to its travel companion - the mystery tern.

With my focus firmly back on the mystery bird, I noticed that the bird had a white ring on the lower right leg and two rings on the lower left leg - comprising a red ring on top of a blue ring. I concluded this must be someone's project - leaving me some hope of finding the real identity of my mystery tern.

I shot off some cell phone shots, but these were inconclusive owing to the lack of clarity on the zoom mode. Fortunately, despite the lack of good photographic evidence, I made sure I had detailed field notes (Fig 1) - describing key features such as the bill, the GIZZ of the bird, with comparisons with the other species of terns with it, and most importantly, the correct colour-ringing configuration. Armed with these I started my quest for identity (the birds, not mine) and

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Manuscript subject: Bird ringing and identification

turned to SAFRING who indicated that one needs the inscription on the silver ring to be sure of a bird's ID. To my dismay, I realised that I had not observed a silver ring, which I discovered almost disqualifies the bird, as it points to an amateur ringer.

And so I turned to the mighty solver of all riddles - namely the internet and started searching - fortunately Ryan (2017) mentions that elegant tern hybrids can have dark markings on their otherwise orange/yellow bill? Following this lead, I started to find pictures of birds thought to be elegant/Sandwich hybrids from America that compared closely with what I had seen. I also remembered hearing of an elegant tern that had been seen recently in the Western Cape and on investigating this, was excited to see a similar methodology of colour ringing used - although with a different colour configuration.

I eventually found a site that lists much of the bird ringing details and research programmes of various European countries - known as EURING. Although there were no details of any elegant terns ringed, there were many Sandwich tern projects. A search through these, revealed a French-based team that used the same ringing methodology. In hope, I sent them (and many others) the details of the bird and the field-notes that I had made.

My summer break was punctuated by daily trips to Cape Recife in search of my mystery bird, which sometimes involved checking hundreds of Sandwich terns - bills and legs - and often a few times in one morning as the tern roost would do their frequent shuffling of the pack! Despite intensive searching on many wind-swept days, the bird did not re-appear!

On getting back to work, good news awaited me, a reply e-mail from France (Fig 2), from Julien Gernigon doing research on elegant/Sandwich tern hybrids off the coast of France - Julien had intimate knowledge of the bird and had ringed it in 2015. He sent a life history and even knew the father of the bird who had also visited the Western Cape, South Africa.

The ringer identified the bird by the ring configuration (and I would assume the bill colour) and added that there was indeed a silver ring but on the upper right leg of the bird, above the knee, a practise that eludes me as been considered a field characteristic, when one takes into consideration the relative size of the bird's legs and its habits of sitting in wet sand and shallow water and with part of the upper leg covered by leg feathering. But this at least solved the mystery of the "lacking" silver ring.

According to the life history from Julien (Table 1), the bird was ringed off the coast of France on Banc d'Arguin - a permanent island/sand bar, off Tete-de-Buch on 16 June 2015. Later that year on 31 August 2015, the bird was seen in Spain off Palmones, Los-Barrios, and now four years later, on the southern coast of the African Continent in South Africa!

Table 1: Table 1. Ring History of Elegant/Sandwich Tern hybrid, ring number M63272.

Date	Age	Latitude	Longitude	Locality	Country	Observer
16/06/2015	Pullus	44.582674	-1.23963	Reserve Naturelle du Banc d'Arguin	France	Julien Gernigon
31/08/2015	Juvenile	36.173114	-5.430284	Palmones	Spain	Alex Colorado
21/12/2018	Adult	-34.028979	25.700626	Cape Recife	South Africa	Brendan O'Connell

The simplicity of the ringing method used led to the positive ID of the tern and also provides the average birder with a way to make a contribution to the field of birding that they enjoy. Nowadays, with better technology and digital cameras there is much potential for good data to be received almost instantaneously by those conducting research and forums such as the Euring color-ringing database provide an essential link between birder and researcher.

Social media appears to be playing an increasing role in research, with users that are essentially demand-driven and expecting instant feedback. This can be achieved, and a good example of this is that during my search for the identity of the tern, I requested and kindly received assistance from fellow members of the Eastern Cape birding Facebook forum and from experts further afield in South Africa. One of the members, following the thread, then posted

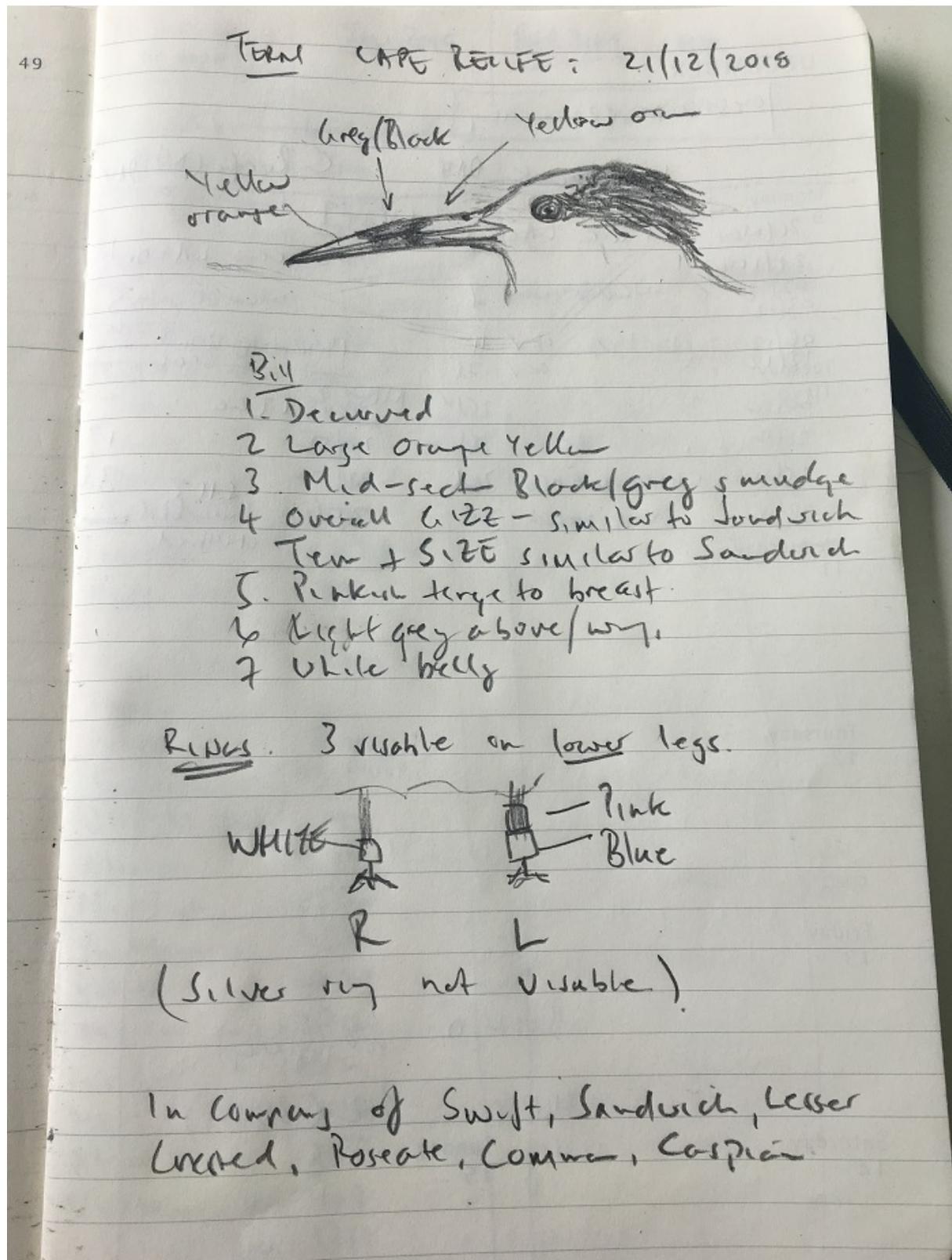


Figure 1: Field notes - elegant/Sandwich tern hybrid?

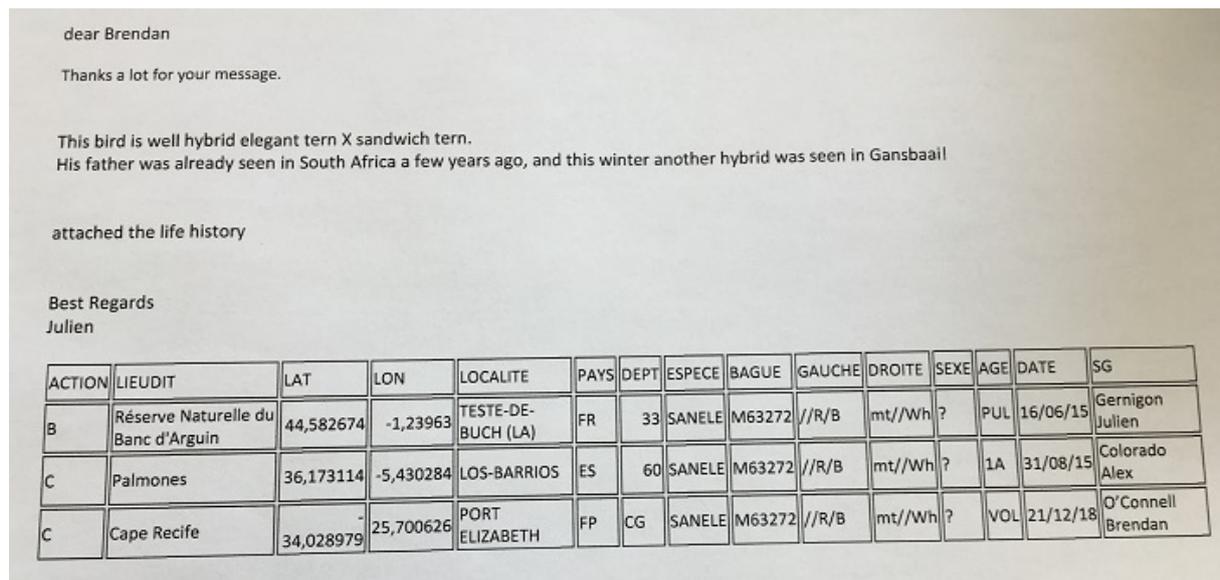


Figure 2: Researcher communication and ring history of elegant/Sandwich tern hybrid

a picture of a Sandwich tern with a lime colour-ring and with 3 black letters clearly inscribed on it. Within hours the social network had linked him with the ringer in Israel, and they had exchanged pictures and the full details of the bird - with a map highlighting the bird's probable journey from Israel to South Africa!

My "discovery" of a ringing system that is user friendly has greatly enhanced my bird watching experience and my hope is that more programmes will adopt the same methodology.

On the 19th of January 2019 I was sitting looking at a large group of mixed terns - with probably close to a thousand birds - resting on the Cape Recife wave-cut platform. It was early evening and I found myself doing my now habitual look for rings. Suddenly, I recognised the "tri-color socks" (red white and blue rings!) and sure enough as the bird stopped preening itself - there was that wonderful banana-shaped bill with the distinctive dark smudge in the mid-section - this time no longer a mystery bird. I took the liberty to call out a good South African "howzit Monseur Jules" - eliciting a few nervous stares from the blushing roseate terns nearest to me!

Acknowledgements

Julien Gernigon (Fr), EURING color-ringing data-base.

Editor's note

For further reading on this topic, the researcher, Julien Gernigon (mentioned above), was co-author on a paper touching on this topic (Dufour et al. 2017) and contributed to an article discussing the topic of elegant terns, their extralimital occurrence, and their possible hybridisation with other species (Dufour et al. 2016).

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