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## CAPE TOWN FILMING STUDIOS: Review and update of faunal recommendations

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## 1 INTRODUCTION

The overall aim of this faunal review is to address specific issues raised by CapeNature in the context of a Development Framework (DF) amendment (and a subsequent amendment) application by Cape Town Film Studios (CTFS). This application process is being managed by Chand Environmental Consultants. CapeNature has requested that a review of the original faunal recommendations be made and for these to be updated where necessary. The precise wording are as follow: *“There have not been any additional faunal specialist studies for the previous amendment application or the current subject application. The proposed amendments to the development layout were not however considered to have a significant change in the impact on fauna. There has however been a lengthy time period between the compilation of the original fauna study and the current application, therefore CapeNature recommends that a faunal specialist reviews the relevant contents of the appeal decision and recommends any amendments based on the current application, and also taking into consideration the changes to the surrounding areas and current best practice. In particular, we wish to recommend that input is required regarding the connectivity between the renosterveld conservation area and the natural areas on Vergenoegd on the eastern side of the R310 where there is a confirmed population of the Cape Caco.”* A faunal specialist (Marius Burger – trading as Sungazer Faunal Surveys) was therefore contracted to prepare such a review for the CTFS amendment application.

## 2 TERMS OF REFERENCE

- Prepare a review of Conditions of Authorisation, inclusive of the relevant old and current environmental reports.
- Address the specific issues/concerns that were raised by CapeNature.

## 3 STUDY APPROACH AND METHODS

### 3.1 Site visit

A site visit was conducted on 28 November 2019 to 1) familiarise the faunal specialist with the general lay of the land and the habitat diversity present, and to 2) make general observations of the four faunal groups under investigation.

### 3.2 Other relevant studies and data sources

The faunal specialist had previously visited the CTFS site when the original faunal assessment for this project was conducted, i.e. Burger 2005. Several subsequent studies conducted at the adjacent Vergenoegd farm are also of general relevance to the CTFS site, e.g. Low *et al.* 2007, Channing 2008, Pepler 2008 and Ractliffe 2009. Likewise, a few more recent Vergenoegd studies were also consulted, i.e. Burger 2020, Helme 2019a, 2019b and Day 2019a, 2019b. The latter were at the time of writing not yet in the public domain. An interview (November 2019) with Atherton de Villiers of CapeNature provided insights on the distribution of the Cape Caco (*Cacosternum capensis*) in this region.

The CTFS site visits provided a number of records for confirmed species occurrence. These were then supplemented with records obtained from literature, database or other data sources in order to obtain

a general impression of the region's faunal communities. The bulk of the species records from this region were obtained from the following sources:

- Various literature sources, including previous unpublished reports (see References)
- FitzPatrick Institute of African Ornithology (FIAO 2019): MammalMAP. <http://vmus.adu.org.za/>
- Southern African Bird Atlas Project 2 (SABAP2: <http://sabap2.adu.org.za/>)
- FitzPatrick Institute of African Ornithology (FIAO 2019): ReptileMAP: <http://vmus.adu.org.za/>
- FitzPatrick Institute of African Ornithology (FIAO 2019): FrogMAP: <http://vmus.adu.org.za/>

### 3.3 Species of conservation concern (SCC)

It was not a specific aim of this faunal review to update the CTFS faunal checklists. Instead, summaries for species of conservation concern (SCC) are provided to reflect changes from the original (Burger 2005) assessment. In most instances the most relevant source for species conservation status is the IUCN Red List of Threatened Species (<http://www.iucnredlist.org/>), as per the most recent updates. The most recent conservation status assessments of southern African mammals (Child *et al.* 2016) are available on the Endangered Wildlife Trust website: <https://www.ewt.org.za/resources/resources-mammal-red-list/mammal-red-list/>, and these were subsequently adopted and incorporated by the IUCN. However, the IUCN database is not yet up to date for South African reptiles, with many species currently remaining as Not Evaluated (NE). For such species the listings of SARCA (Southern African Reptile Conservation Assessment; Bates *et al.* 2014) are used to tentatively fill the gaps where global IUCN assessments are currently lacking. The IUCN listing is also the most appropriate and up to date source for the conservation status of South African amphibians.

## 4 SPECIES OF CONSERVATION CONCERN

### 4.1 Mammals

Almost all of the CTFS mammal species are listed as being of Least Concern (LC). The only exception is the African Striped Weasel (*Poecilogale albinucha*) which is Near Threatened (NT). This species has become rare in developed areas, but it is presumed that individuals may potentially still inhabit some of the natural or partially transformed habitats at the CTFS site and general surroundings.

### 4.2 Birds

A number of threatened birds occur in the general region. The most relevant species in the context of the CTFS site are African Marsh-harrier (*Circus ranivorus*) which is Endangered (EN) at a national level and Blue Crane (*Anthropoides paradiseus*) which is NT at a national level. The CTFS site contains wetland habitat with dense stands of reeds that are currently being utilised by African Marsh-harriers, and these areas are well outside of the CTFS developed precincts. Observations of a pair of Blue Cranes with chick(s) have been recorded at the north-eastern renosterveld patch.

### 4.3 Reptiles

Almost all of the CTFS reptile species are listed as being of LC. The only exception is the Cape Dwarf Chameleon (*Bradypodion pumilum*) which was up until recently listed as being Vulnerable (VU; Bates *et al.* 2014), but it was down-listed to NT in the most recent IUCN (2018) re-assessment of southern

African reptile endemics. Likewise, the Cape Whip Snake (*Psammophis leightoni*) that used to be listed as VU (Bates *et al.* 2014) was also radically down-listed. It is now regarded as being of LC (IUCN 2018).

#### 4.4 Amphibians

The only amphibian SCC in this area is the Cape Caco (*Cacosternum capense*). A few old records are known from the general region, but none specifically from the CTFS site (A.L. de Villiers pers. comm. 2019; see Figure 1). It has been speculated before that the patch of renosterveld in the north-eastern extremities of the CTFS site (see Figure 1) may potentially be inhabited by Cape Cacos, but this is currently unconfirmed. When this specific area was visited during the original faunal survey (Burger 2005; late summer) and during the most recent faunal survey (November 2019), the terrain seemed rather unsuitable as breeding habitat for Cape Caco. Much of the so-called renosterveld was completely obscured by alien *Acacia saligna* infestations (see Figure 4), with no clear evidence of wetland conditions. Based on the current observations, it seems rather unlikely that this species does in fact occur there. A dedicated survey during middle to late winter is needed to determine if the species is present here or not. To my knowledge, such a survey has never been conducted.



**Figure 1:** The four red dots denote various records of the Cape Caco (*Cacosternum capense*) at the Vergenoegd site (bottom right) and nearby surroundings within a 2 km radius. The two western records originate from 1976 and 1977 (observations by Greig and Boycott). The two eastern records were observed on 30 June 1997, with 30 to 40 frogs heard calling near the Baden Powell Drive/Faure Road intersection and about 70 calling from the Vergenoegd property (A.L. de Villiers pers. comm. 2019). It has been speculated before that the species might also occur within a section of CTFS renosterveld habitat (indicated on map with a question mark), but this has never been confirmed.

The extent of functional ecological connectivity between the CTFS patch of renosterveld and adjacent nodes of renosterveld is seemingly rather limited and not of significant conservation value. This is mostly due to the position of the R310 (Baden Powell Drive) which represents a belt of wide hazardous terrain that forms a significant hindrance to frog dispersal/migration movements. If the CTFS patch of renosterveld does turn out to contain a population of Cape Caco (although this is more likely not to be the case), it will be isolated from other populations in the general region.

## **5 DEVELOPMENT FRAMEWORK (DF) AMENDMENTS**

### **5.1 Details of the revised DF**

The proposed changes of the DF encompass the following key aspects (see also Figure 2):

- Straightening and realignment of boundaries of the outdoor studio zone, testing facility, the renosterveld area, as well as some other developable areas.
- The change in land use of a portion of the CTFS and some of the renosterveld and residential areas to mixed use (denoted as mixed use 1, 2, 3 and 4 in the proposed amended DF).
- Change in land use rights of the outdoor studio zone to include rights in two portions for temporary structures without foundations and/or which do not require building plan approval, such as those in the current backlots, access routes to the proposed backlots, as well as an area for conservation.
- Removal of berms in the DF (note that no berms have been constructed on the ground within the buffer zones to date) and replacement of the plan annotation with “buffer zone”. The exception is the berm to the west of what is currently referred to as “Residential Area 2” where the intention is to alter the land use to “mixed use” which would not require any buffer and, therefore, the buffer and berm would be removed (from the plan only, as nothing is yet on the ground within the buffer zones between the conservation areas and development areas).
- Realignment of the secondary access road at the point which it enters the northern boundary of the site. The realignment requires the addition of two traffic circles and a short segment of road (a minor area of which would encroach into the renosterveld area). The secondary access road would be a Class 4 public road.
- Inclusion of the service station, which has already been granted Environmental Authorisation (EA ref no. 16/3/1/1/A4/74/1070/14) and has already received approval from the City of Cape Town for a consent use.

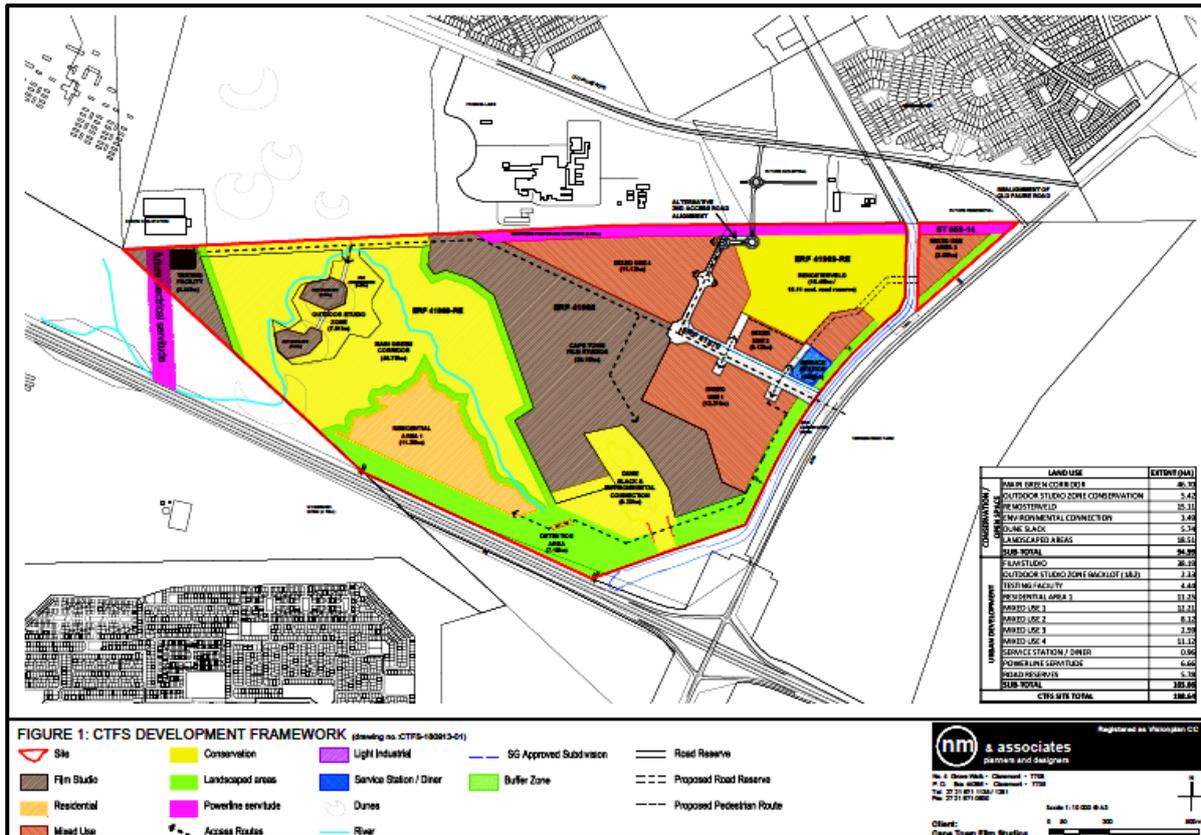


Figure 2: The proposed new Development Framework for the Cape Town Films Studio.

## 5.2 Faunal considerations in respect of the revised DF

Significant improvements were noted at specific nodes during the November 2019 site visit, where patches of habitat were rehabilitated from a previously degraded state. The most significant example is the salt-marsh wetland habitat (see Figure 3) that now provides resources for various waders and other waterfowl species. In contrast, the patch of renosterveld in the north-eastern reaches of the CTFs site seems to fluctuate between stages of partial rehabilitation and renewed infestation by *Acacia saligna*. This section is in need of continued vegetation management in order to improve the habitat quality of the renosterveld. This is a difficult objective to achieve, because foliar spraying is not desirable in the renosterveld. The current strategy is to allow the alien vegetation to grow to a height (see Figure 4) which makes it easier to cut and treat with herbicide.

The details of the various DF modifications were each individually considered, and the various potential impacts were assessed. The extent of boundary adjustments and infringements onto renosterveld habitat are deemed to be acceptable and they do not represent a major deviation from the previously approved DF.



**Figure 3:** Rehabilitated salt-marsh wetlands within the CTFS site.

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**Figure 4:** The north-eastern patch of renosterveld in its current state of being infested by alien *Acacia saligna*.

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## 6 CONCLUSIONS AND RECOMMENDATIONS

From a faunal perspective the proposed amendments to the DF do not present significant increases of negative impacts, and thus there are no specific objections raised to this effect. As such, the faunal impacts of the proposed amendments to the DF are the same as those initially assessed for the 2006 DF. A number of general recommendations are proposed, but these are not restrictive in terms of the current CTFS DF amendment application. These are:

### CONDITIONS OF AUTHORISATION

The most important of the above recommendations are those that are specifically applicable to the rehabilitation of renosterveld habitat and the surveying of Cape Cacos.

- Improve the control of *Acacia saligna* on the renosterveld patch so that the site can be adequately rehabilitated and managed as renosterveld habitat.
- Conduct a targeted survey during the middle to late winter to determine the presence/absence of Cape Caco within the CTFS site. This is achievable in a single season if it is not a below-average rainfall year. Such a survey would require about five night-time visits during the peak of the annual rainfall season. Conclusive results (i.e. presence or absence of Cape Caco) should be achievable within three surveying stints, i.e. within three years.

### RECOMMENDED NON-ESSETIAL RECOMMENDATIONS

The following are non-essential but good-to-have recommendations that would inform and improve the general conservation management of the CTFS site.

- Conduct a survey within developed and conservation nodes to determine the extent of invasion by Cape Dwarf Gecko. A single specimen was observed during the November 2019 site visit. The ideal timing for such a survey is during the spring and summer seasons, and is achievable with a one-day surveying effort. The results will most likely be academic of nature, with no specific management actions needed.
- Conduct a survey of the artificial wetlands to determine which species of fish are present. Such a survey can be conducted during any season, with winter or spring being more suitable. Such a survey is achievable with a one or two-day surveying effort.
- Conduct annual baseline surveys of mammals, birds, reptiles and amphibian communities within the CTFS site. These should initially be done by a faunal expert that would then also provide training to CTFS environmental staff to conduct these in future. The ideal timing for such surveys is during the spring and summer seasons, and is achievable with a week-long surveying effort. The results should be recorded in a CTFS biodiversity database (see below).

Establish an electronic database to log faunal observations within the CTFS site.

## 7 REFERENCES

The following references were consulted in the preparation of this faunal assessment:

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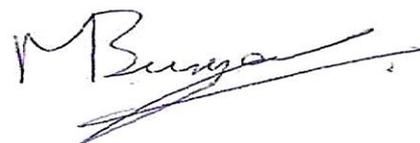
## 8 DECLARATION OF INDEPENDENCE

I hereby declare that I have no conflicts of interest related to the work of this report. Specifically, I declare that I have no personal financial interests in the property and/or development being assessed in this report, and that I have no personal or financial connections to the relevant property owners, developers, planners, financiers or consultants of the development. I declare that the opinions expressed in this report are my own and a true reflection of my professional expertise.

### CV OF SPECIALIST CONSULTANT (abridged)

Mr **Marius Burger** holds a National Diploma in Nature Conservation with Cape Technicon, and worked as a research assistant with Eastern Cape Nature Conservation (1987-1997). Subsequently he took up employment with the Animal Demography Unit (ADU, University of Cape Town) as National Coordinator of the Southern African Frog Atlas Project (1997-2003) and as Project Herpetologist of the Southern African Reptile Conservation Assessment (2005-2009). Burger's EIA activities as a faunal specialist started in 1996. He established a sole-proprietor business *Sungazer Faunal Surveys* in 1988, and has since participated in about 90 different projects in collaboration with a variety of EIA consultancies. His achievements as a faunal specialist are summarised below:

- Member of IUCN SSC Snake and Lizard Red List Authority 2017-2020: 2017 – present.
- Member of South African Frog Re-assessment Group (SA-FRoG): 2013 – present.
- Member of Herpetological Association of Africa: 1988 – present.
- Extraordinary Lecturer with the Unit for Environmental Sciences and Management, North-West University: 2015 – present.
- Research collaborator with FLORA FAUNA & MAN, Ecological Services Ltd.: 2011 – present.
- Research Collaborator with the Smithsonian Institute: 2002 – 2004.
- Research Collaborator with the South African Museum: 2000 – 2002.
- Country liaison for the journal *Amphibian and Reptile Conservation*: 2000 – 2004.
- Chairman of the Port Elizabeth Herpetological Club: 1992 – 1996.
- Compiled about 100 specialist and EIA reports for various consultancies and projects.
- Published about 105 scientific, semi-scientific and popular articles, and authored/edited three books and 34 chapters/accounts in books.
- Presented 41 papers/posters at national/international symposia.



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