



**DST-NRF Centre of Excellence**  
***“Birds as Keys to Biodiversity Conservation”***  
**Percy FitzPatrick Institute,**  
**University of Cape Town**

**ANNUAL REPORT 2012**

**Reporting Period**  
**1 January - 31 December 2012**

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**CoE Identification**

|                      |   |
|----------------------|---|
| Name of Director     | : Prof. Philip A.R. Hockey (deceased 24 January 2013)<br>Acting Director: Assoc. Prof. Peter Ryan |
| Name of CoE          | : DST-NRF Centre of Excellence at the Percy FitzPatrick<br>Institute of African Ornithology       |
| Abbreviated CoE name | : PFIAO CoE   |
| Host Institution     | : University of Cape Town   |
| Date completed       | : 18 March 2013   |

## EXECUTIVE SUMMARY

### 1. Funding of the CoE for 2012

|  |   |               |
|--|---|---------------|
| Total DST/NRF CoE funding for 2012                   | : | R 5,611,535   |
| Carry forward from 2011                              | : | R 809,499     |
| Interest earned during 2011                          | : | R 90,321      |
| UCT support for the Pazvolski Chair in 2012          | : | R 166,374*    |
| UCT Research Committee support in 2012 ('hot birds') | : | R 285,000*    |
| Funding from other sources for the CoE in 2012       | : | R 6,518,000** |
| Total funding  | : | R 13,480,729  |

\* represents UCT's contribution to the CoE R451,374 of R5,611,535 = 8% of NRF contribution.

\*\* funding from sources other than the DST/NRF or UCT's Research Committee 'hot birds' grant for projects conducted by the CoE (see Finances Section pages 22 - 26).

### 2. Summary of progress against Five Key Performance Areas

#### (i) Research

During 2012, 87 research papers were published in peer-reviewed journals, 56 in journals with an impact-factor rating  $\geq 1.5$ , 28 in journals with a rating  $\geq 3.5$ , eight in journals with a rating  $\geq 5$  and one in a journal with a rating  $\geq 10$ . The proportion of peer-reviewed papers published according to the focal research areas is; characterizing biodiversity = 8, evolutionary ecology = 41 and maintaining biodiversity = 38.

#### (ii) Education and Training

Sixty post-graduate students (19 PhD, 40 MSc and 1 BSc Honours) registered at South African institutions (18% black and 50% women) were supported directly or indirectly by the CoE during 2012. Seventeen students (3 PhD, 1 MSc by dissertation, 12 MSc Conservation Biology and 1 BSc Honours) graduated during 2012. Thirteen Post-doctoral Fellows were registered at the CoE during 2012.

#### (iii) Information Brokerage

Forty semi-popular articles and seven contributions to semi-technical books were published during 2012. CoE members attended 17 international and 9 local conferences. CoE members also presented seminars and illustrated talks at numerous universities, bird clubs and membership-based societies. The CoE co-hosted and funded a local *Frontiers in South African Ornithology Conference* with BirdLife South Africa and an *International Blue Swallow Action Plan Review Workshop* with the Endangered Wildlife Trust during 2012.

#### (iv) Networking

A broad range of close collaborative working relationships exists both nationally and internationally with scientific peers and a variety of conservation NGOs and governmental organisations. The CoE continued to be involved with student training initiatives, and continues to build much-needed African capacity in the broad arena of biodiversity conservation.

### **(v) Service rendering**

The CoE has been active in advising conservation organizations, government departments and industry on a variety of research topics. CoE members served on 18 journal editorial boards, 47 membership and advisory services, and reviewed at least 158 papers for 64 peer-reviewed journals.

### **3. Gender and equity impacts of research**

A proactive policy on recruiting women maintained a 50% representation of women in the postgraduate student body for 2012. Research project activities are increasingly addressing gender-related issues and community inclusion in the field, for example in the avian diseases, seabirds and Cape Parrot projects.

### **4. Red Flags/concerns for the future of the CoE**

Following the very positive news from the NRF during 2012 that the PFIAO CoE will receive support for a third phase (2015-2019) with a minimum expectation of the level of funding during 2014, the only area of concern is that the current level of academic staffing is reaching saturation with respect to their capacity to supervise students. Prof. Tim Crowe retires at the end of 2013, following a protracted period of ill-health, and A/ Prof. Peter Ryan will be moved into that post, potentially losing the CoE one academic post. The sad passing of Prof. Phil Hockey in January 2013 also has resulted in a further reduction in academic staff while the process of appointing a new Director is concluded.

### **5. General Comments**

The PFIAO CoE was given a profile page (page 11) under the theme 'Earth Stewardship: playing our role in securing a sustainable future' in a publication *10 reasons why you should partner with UCT* compiled by the UCT Development and Alumni Department during 2012. This reflects the value that UCT places on the PFIAO CoE's role and outputs.

# PROGRESS REPORT

## 1. Scientific Research

### Objective

The research strategy of the CoE has been aligned to a medium-term goal of producing world-class research outputs, measured as the number of research papers published in international, peer-reviewed journals with high SCI impact-factor ratings. To meet this goal, the CoE Service Level Agreement (SLA 5) has a target of publishing  $\geq 60$  peer-reviewed publications per year, with an average of  $\geq 15$  papers with an impact rating  $\geq 3.5$ , of which five should have an impact factor  $\geq 5$  each year during 2012-2014.

### Progress

Eighty-seven CoE research papers were published in peer-reviewed journals during 2012 (Appendix 1); 28 were in journals with impact factors  $\geq 3.5$ , eight were in journals with impact factors  $\geq 5$ , and one in a journal with a rating  $\geq 10$  (Fig. 1). The proportion of peer-reviewed papers published according to the focal research areas is: characterizing biodiversity = 8, evolutionary ecology = 41 and maintaining biodiversity = 38.

**FitzPatrick Institute CoE publications in peer-reviewed journals, 2000-2012**

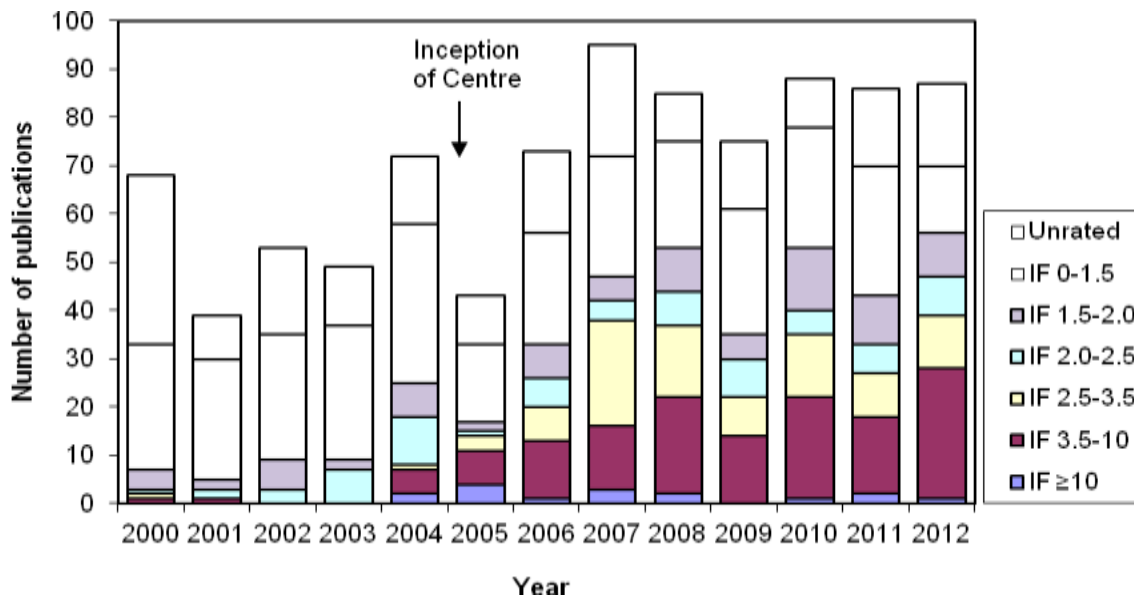


Figure 1. Trends in the impact of FitzPatrick Institute CoE publications before and after the establishment of the CoE. IF = ISI journal Impact Factors. To place this in perspective, only five life-sciences journals worldwide (including Science and Nature) have impact factors  $> 10$ .

A 2012 CoE paper titled 'Inbreeding avoidance mechanisms: dispersal dynamics in cooperatively breeding Southern Pied Babblers' by Nelson-Flower, Hockey, O'Ryan & Ridley, published in the *Journal of Animal Ecology*, was picked as the 'In Focus' article for the issue and was thus accompanied by a brief article about the research in the journal, along with a photograph.

The Science Writer & Press Officer of the Natural Environment Research Council, UK, wrote a focal news story about the paper in *Animal Conservation* titled 'Predation of Atlantic Petrel chicks by House Mice on Gough Island', by Wanless, Ratcliffe, Angel, Bowie, Cita, Hilton, Kritzing, Ryan & Slabber for the Natural Environment Research Council's research news website *Planet Earth Online*.

Another CoE paper titled 'Towards a unification of movement ecology and biogeography: conceptual framework and a case study on Afrotropical ducks' by Cumming, Gaidet & Ndlovu featured on the cover of the August issue of the *Journal of Biogeography*.

The Editor-in-Chief of the journal *Ibis*, Dr Paul Donald, informed us that a 2010 PFIAO CoE paper titled 'Modelling power-line collision risk for the Blue Crane *Anthropoides paradiseus* in South Africa' by Shaw, Jenkins, Smallie & Ryan was one of the top 20 most cited papers published in *Ibis* during the past 2 years, and thus participated in increasing *Ibis*'s IF in 2012 to the number one spot among ornithological journals, which is the first time *Ibis* has been top since this bibliometric system began.

Prof. Graeme Cumming was given a prestigious scholar award of US \$450,000 over 6 years for research on complexity theory by the James S. MacDonnell Foundation (see <http://www.jsmf.org/programs/cs/>). Based on the details on the web site, this is the first such award made to an African researcher.

## **2. Education and Training**

### **Objective**

The short-term objective, as outlined in the SLA 5, is for the CoE to support (at least partially) an average of  $\geq 30$  postgraduate students and  $\geq 6$  Post-doctoral Fellows per annum during 2012-2014. A further target is for black students to comprise  $\geq 30\%$  and women students to comprise  $\geq 50\%$  of the students supported by the CoE over this period. A medium- to long-term objective is to continue to build a vibrant research environment that instils a rigorous hypothetico-deductive approach to problem solving among the postgraduate student body.

### **Progress**

Nineteen PhD, 40 MSc and one BSc Honours student (total = 60) registered at South African institutions were supported directly or indirectly by the CoE during 2012 (Table 7). Eleven (18%) of these students were black, and 30 (50%) were women. Thirty-two (51%) of the students were South African, but there were only four black South African students. Thirteen Post-doctoral Fellows were registered at the CoE during 2012 (Table 6).

Seventeen students graduated during 2012: three PhD, one MSc by dissertation, 12 MSc Conservation Biology and one BSc Honours (Table 6). Two of the MSc students graduated with distinction.

Dr Alan Lee was awarded first prize for his poster at the Fynbos Forum held during July 2012 at Cape St Francis, Eastern Cape. Dr Susie Cunningham was awarded the best oral presentation for her talk on "Common Fiscals and Climate Change in the Kalahari" at the

inaugural Post-doctoral Research Day which was hosted by the Health Sciences Post-doctoral Association at UCT in November 2012.

**Table 1. Summary statistics for student numbers 2004 – 2012**

(Excludes BSc Honours students supported, because they graduate within the Zoology Department)

| Degree                     | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      | 2011      | 2012      |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Post-doc                   | 0         | 6         | 9         | 8         | 9         | 12        | 11        | 12        | 13        |
| PhD                        | 6         | 8         | 13        | 18        | 19        | 15        | 18        | 21        | 19        |
| MSc                        | 5         | 8         | 6         | 5         | 7         | 6         | 7         | 6         | 13        |
| MSc CB                     | 15        | 11        | 14        | 12        | 11        | 11        | 12        | 13        | 15        |
| MSc CB <sub>2</sub>        | 13        | 15        | 11        | 14        | 12        | 11        | 11        | 12        | 12        |
| <b>Tot –CB<sub>2</sub></b> | <b>26</b> | <b>33</b> | <b>42</b> | <b>43</b> | <b>46</b> | <b>44</b> | <b>48</b> | <b>52</b> | <b>60</b> |
| <b>Tot +CB<sub>2</sub></b> | <b>39</b> | <b>48</b> | <b>53</b> | <b>57</b> | <b>58</b> | <b>55</b> | <b>59</b> | <b>64</b> | <b>72</b> |

2004 = prior to CoE

CB<sub>2</sub> = second year of a CB class cohort

### 3. Information Brokerage

#### **Objective**

Medium- to long-term objectives are to: (1) make a sustained contribution to the semi-popular literature aimed at popularizing science in the fields of conservation biology in general and ornithology in particular; (2) provide expert views on relevant matters for newspaper and magazine articles; and (3) contribute to books of a semi-technical nature. The CoE also has a SLA 5 target to organize at least one local conference during this stage (2012 - 2014).

#### **Progress**

Forty semi-popular articles and seven book chapters were published during 2012 (Appendix 1). Following the cancellation of the popular magazine *Africa: Birds & Birding* in 2012, CoE members Profs Phil Hockey, Andrew McKechnie and Peter Ryan were asked to act as scientific advisors for a new magazine, *African Birdlife*, launched in late 2012 by BirdLife South Africa.

CoE members continued to present regular public talks to partner organisations and interested parties, such as the Sasol Birds and Birding Fair, various NGOs, environmental action groups, conservancies and various bird clubs and membership-based societies. Various radio interviews have also been conducted, including on Cape Talk Radio, Radio 702, OFM Radio, two BBC national radio stations, German and Canadian national radio, and the Hectic Nine-9 live television show for the youth on SABC2.

CoE staff and students attended 17 international and nine local conferences during 2012 (see Outputs, page 21). Two CoE Post-doctoral Fellows presented papers at the inaugural Health Sciences Post Doctoral Association (HSDPA) conference for post-docs from UCT and the University of Stellenbosch held at the Groote Schuur Campus, UCT, on 20 November 2012.

The PFIAO CoE and BirdLife South Africa co-hosted a conference *Frontiers in South African Ornithology* at Pine Lodge in Port Elizabeth, Eastern Cape, during March 2012. The conference was attended by 65 delegates and was regarded as a great success, particularly for young scientists. Seven CoE staff members and research associates and 12 CoE students attended the conference. Andrew McKechnie and Mandy Ridley gave invited keynote addresses, which were well received. This event satisfies the SLA 5 target of organizing at least one local conference during this CoE stage.

The CoE also funded an *International Blue Swallow Action Plan Review Workshop* organized by Andrew McKechnie and the Endangered Wildlife Trust and held in Howick, KwaZulu-Natal, during March 2012. During this workshop, 28 delegates from nine Blue Swallow range states interrogated the *status quo* of Blue Swallow knowledge and conservation activities and refined the species action plan for these birds. It is intended that two peer-reviewed papers will emanate from the contents of the workshop.

The Albatross and Petrel Agreement's honorary Information Officer, John Cooper, was honoured with a Lifetime Achievement Award by the Pacific Seabird Group at its 39<sup>th</sup> Annual Meeting during February 2012 in Oahu, Hawaii, USA. In the presentation address by Alan Burger, an old colleague of John's at the FitzPatrick Institute, UCT, now based in Canada, mention was made of the Agreement and Conservation of Albatrosses and Petrels (ACAP) and the information service it provides to the community through *ACAP Latest News*. John's role as Founding Editor of the international journal *Marine Ornithology* was also highlighted.

The CoE presented a stand at the DST/NRF 2012 CoE Annual Day held at the University of Pretoria on 13 November 2012, at which Rob Little gave an overview of the alignment and delivery of the PFIAO CoE to the South African Government's Outcomes Approach, specifically for research and development.

UCT celebrates Africa Day on 25 May each year, which is an opportunity to highlight the CoE's role and contribution to higher education and development in South Africa and the rest of Africa. The week long Africa Exhibition from 21-25 May 2012 aimed to highlight academic research and capacity building endeavours, collaborations and links UCT staff members have forged with continental universities, and the contribution made to the generation of African knowledge. The CoE presented a stand with a banner and posters that reflected our activities and impacts in Africa.

Peter Ryan and a Post-doc from Prof. Anusuya Chinsamy-Turan's laboratory (Head of Department, Biological Sciences, UCT) presented a full day course "The Never Ending Story: Bird Evolution from Dinosaurs to the latest splits" in collaboration with the Cape Bird Club during August 2012.

Following the launch of the Cape Parrot Project Facebook page in 2010, it has become the largest parrot conservation group online in the world with over 4,500 subscribers and hundreds of photos, videos, links and posts. In 2012, the project produced a TV show "Endangered" which has been screened in the US on PBS and local networks it will be

screened on SABC3 after "Shoreline 2". Claire Spottiswoode's African Cuckoo project in Zambia was filmed by the BBC's Natural History Unit during 2012 for a forthcoming 'Survival' series.

A six-part reality TV series was produced on the activities of the 2012 Okavango Wetland Bird Survey as a spin-off from Steve Boyes's Meyer's Parrot research. The bird surveys have now been conducted for nine years in collaboration with BirdLife Botswana and the Okavango Research Institute. During the 2012 survey, the team also monitored water quality along the 220 km transect route, searched for new species of springtail (in collaboration with Stellenbosch University), and swabbed frogs for chytrid fungus (in collaboration with the Endangered Wildlife Trust). The TV series created for Carte Blanche National Geographic Wild will give the project (and by extension the PFIAO CoE) considerable exposure, all in support of the nomination of the Okavango Swamps for World Heritage Status: <http://vimeo.com/38028932> (Password: delta) or youtube: <http://youtu.be/7woPqwDrL0k>.

Don Pinnock published a double-page article titled 'The secret life of cats' on the findings of Sharon George's MSc CB project in the 'Departure Lounge' section of the February 2012 issue of *Getaway Magazine*. Jess Shaw and Sharon Okanga's PhD research projects were profiled as extensive blogs titled 'Saving the Ludwig's Bustard' and 'Avian malaria in Western Cape birds' on the SANParks Wildcard site during March and April 2012, respectively. These were linked to the Fitz Facebook site and to their personal pages on the Fitz website.

<http://www.wildcard.co.za/blog.htm?action=view-post&id=3338> & 3350

Jess Shaw also gave talks on the Ludwig's Bustard project and the conservation problem of bird collisions with power lines to CapeNature in February, the Cape Bird Club in March and the Overberg Bird Club in June 2012. In addition, an article on the value of satellite telemetry for bird conservation featured in a book-magazine '*Sustainable Development in Africa & Satellites: Technologies and Wisdoms*'.

Sharon Okanga and Rita Covas published articles titled 'Avian malaria has spread its wings' and 'Ever wondered what's happening in those nests', respectively, as a new regular space for the PFIAO CoE in the *SANParks Times* (Spring & Summer editions 2012).

Karien Jordaan of OFM Radio (originally Oranje FM) compiled a sound clip with interviews by Rita Covas and Mark Anderson (BirdLife SA) on the Benfontein Reserve Sociable Weaver project which was aired during May 2012 <http://www.ofm.co.za/news.asp?nid=29630>. Eben Human also wrote a full-page focus article on the Sociable Weaver project titled 'Versamevoels raak ouer as wat baie dink' in a June issue of *Die Burger*. Eben Human also did a similar full-page focus article on the Black Harrier project titled 'Valk migreer van Weskus na pieke in Drakensberg' in a May issue of *Die Burger*.



## 4. Networking

### **Objective**

Medium- to long-term objectives are to: (1) establish a wide range of key collaborative associations with scientific peers and peer research groups, both locally and abroad; (2) establish partnerships with conservation organisations and NGOs; and (3) establish strong relationships with business organisations with either direct or indirect interests in the fields of conservation biology and ornithology.

### **Progress**

The CoE continued its involvement with joint-venture student training initiatives and other networking interactions between institutions directly or loosely collaborating with the CoE. Primary collaboration continued with the molecular laboratories of A/Prof. Rauri Bowie at the University of California, Berkeley and Prof. Paulette Bloomer at the University of Pretoria, with A/Prof. Andrew McKechnie also at the University of Pretoria and with Dr Pierre Pistorius at the Nelson Mandela Metropolitan University.

A diversity of close collaborative working relationships with scientific peers now exist both nationally and internationally (Table 2). Additional emphasis has been placed on working with historically black universities in South Africa and African universities, e.g. Fort Hare University, Tshwane University of Technology and the Universities of Zimbabwe and Zambia. Nine of the 13 Post-doctoral Fellows came from seven different foreign countries.

The CoE also continues close research relationships with 11 Honorary Professors and Honorary Research Associates, of which seven have official UCT honorary status (Table 5). These honorary CoE members contribute to the course-work modules of the Conservation Biology MSc programme and co-supervise various thesis students.

The MSc Conservation Biology Course has continued to build much-needed capacity within and outside of South Africa in the broad area of biodiversity conservation, with the graduation of students from South Africa (2), UK (2), USA (3), Canada, Liberia, the Netherlands and Zimbabwe, and the enrolment of students from South Africa (6), the USA (2), Australia, Canada, Germany, Mauritius, the Netherlands and the UK during 2012.

### **Prominent research and conservation partners who visited the CoE during 2012:**

Dr Yan Ropert-Coudert, a leading bio-logging expert from the CNRS, Strasbourg, joined the annual relief voyage to Marion Island in April-May 2012 to help set up collaborative research projects with students working on the island. While in Cape Town he gave an extremely entertaining seminar on the trials and tribulations of bio-logging.

Mduduzi Ndlovu, a previous PhD student of the CoE, now a staff member at WWF South Africa, gave a seminar on WWF SA's five point strategy for Rhino Conservation on 17 October 2012.

Dale Wright, a previous CoE CB MSc student and now BirdLife South Africa's Regional Conservation Manager for the Western Cape gave a seminar on Important Bird Areas and bird conservation in the Western Cape on 23 October 2012.

Dr Francios Mougeot and Dr Beatriz Arroyo Lopez from the Spanish national research agency (CSIS) visited the CoE during December 2012. Dr Mougeot has interests in behavioural ecology, population ecology and conservation, while Dr Lopez's interests are in applied ecology, wildlife management and ecological conflicts between human use of natural resources and animal conservation. They gave seminars to introduce themselves and their work to the CoE. Titles: Francios Mougeot: Modelling migration and movements of Pallid and Montagu's harriers, and Beatriz Arroyo: Social conflicts and management challenges associated with vole outbreaks in farmland in north-central Spain.

Prof. Stephen Redpath from the Aberdeen Centre for Environmental Sustainability (ACES), University of Aberdeen, visited the CoE for a week during December 2012 when he had some interactions with students and gave a seminar titled 'The role of ecology in transforming conservation conflicts'.

**Table 2. Collaborators involved with CoE during 2012**

| Title | Surname      | Citizen   | Institution              | Gender | Race | % time spent working in CoE |
|-------|--------------|-----------|--------------------------|--------|------|-----------------------------|
| Dr    | Abolnik      | SA        | Onderstepoort Vet Inst   | F      | W    | 2                           |
| Dr    | Allan        | SA        | Durban Museum            | M      | W    | 1                           |
| Dr    | Alström      | Sweden    | Uppsala Univ.            | M      | W    | 2                           |
| Mr    | Anderson     | SA        | BirdLife SA              | M      | W    | 5                           |
| Dr    | Aronson      | France    | CNRS                     | M      | W    | 1                           |
| Prof. | Balmford     | UK        | Cambridge                | M      | W    | 2                           |
| Dr    | Barker       | USA       | U Minnesota              | M      | W    | 1                           |
| Dr    | Barnard      | SA        | SANBI                    | F      | W    | 5                           |
| Dr    | Barrowclough | USA       | Am Mus Nat Hist          | M      | W    | 1                           |
| Dr    | Bates        | USA       | Chicago Mus.             | M      | W    | 1                           |
| Dr    | Beresford    | USA       | Stockton College         | F      | W    | 1                           |
| Prof. | Blignaut     | SA        | U Pretoria               | M      | W    | 1                           |
| Dr    | Bodin        | Sweden    | Lund Univ.               | M      | W    | 2                           |
| Dr    | Bonyongo     | Botswana  | Okavango Research Centre | M      | B    | 10                          |
| Dr    | Boucher      | SA        | U Stellenbosch           | M      | W    | 1                           |
| Prof. | Brigham      | Canada    | U Regina                 | M      | W    | 2                           |
| Dr    | Caron        | France    | CIRAD                    | M      | W    | 2                           |
| Mr    | Chiweshe     | France    | CIRAD                    | M      | B    | 2                           |
| Dr    | Collar       | UK        | BirdLife International   | M      | W    | 2                           |
| Dr    | Covas        | Portugal  | CEFE-CNRS, France        | M      | W    | 80                          |
| Dr    | Cumming      | Zimbabwe  | U Zimbabwe               | M      | W    | 20                          |
| Dr    | Cuthbert     | UK        | RSPB                     | M      | W    | 2                           |
| Dr    | Doutrelant   | France    | CEFE-CNRS                | F      | W    | 5                           |
| Dr    | Gaidet       | France    | CIRAD                    | M      | W    | 2                           |
| Dr    | Gous         | SA        | SANCCOB                  | M      | W    | 5                           |
| Dr    | Gremillet    | France    | CNRS                     | M      | W    | 20                          |
| Dr    | Fjeldsa      | Denmark   | U Copenhagen             | M      | W    | 2                           |
| Dr    | Freckleton   | UK        | Oxford U                 | M      | W    | 1                           |
| Dr    | Hatchwell    | UK        | U Sheffield              | M      | W    | 5                           |
| Dr    | Hilton       | UK        | RSPB                     | M      | W    | 1                           |
| Prof. | Huntley      | UK        | U Durham                 | M      | W    | 1                           |
| Dr    | Irestedt     | Sweden    | Sw Mus Nat Hist          | M      | W    | 2                           |
| Prof. | Jansen       | SA        | Tshwane U Tech           | M      | W    | 1                           |
| Dr    | Jetz         | USA       | U Cal. San Diego         | M      | W    | 1                           |
| Dr    | Kato         | France    | CNRS                     | F      | B    | 10                          |
| Dr    | Kock         | SA        | WCS                      | M      | W    | 2                           |
| Prof. | Lovegrove    | SA        | U KZN                    | M      | W    | 5                           |
| Mr    | Magunje      | Zimbabwe  | BirdLife Zim             | M      | B    | 5                           |
| Dr    | Milewski     | Australia | Murdoch U                | M      | W    | 20                          |
| Dr    | Mitchell     | Australia | U. Western Aus           | F      | W    | 5                           |
| Dr    | Mzilikazi    | SA        | NMMU                     | M      | B    | 5                           |
| Dr    | Quader       | India     | National Centr Biol Sci  | M      | B    | 5                           |
| Prof. | Redpath      | UK        | Aberdeen University      | M      | W    | 10                          |
| Prof. | Richardson   | SA        | U Stellenbosch           | M      | W    | 1                           |
| Dr    | Ridley       | Australia | Macquarie U              | F      | W    | 50                          |
| Dr    | Ross         | USA       | WILD Foundation          | F      | W    | 5                           |
| Dr    | Seebacher    | Australia | U Sydney                 | M      | W    | 5                           |
| Prof. | Swanson      | USA       | U South Dakota           | M      | W    | 1                           |
| Prof. | Sorenson     | USA       | Boston U                 | M      | W    | 2                           |
| Dr    | Spottiswoode | UK        | U Cambridge              | F      | W    | 30                          |
| Dr    | Tyler        | UK        | African Bird Club        | F      | W    | 10                          |
| Mr    | Willems      | Zambia    | Kasanka Trust            | M      | W    | 10                          |
| Dr    | Wimberger    | SA        | U Fort Hare              | F      | W    | 10                          |
| Dr    | Wanless      | SA        | BirdLife SA              | M      | W    | 40                          |
| Prof. | Wolf         | USA       | U New Mexico             | M      | W    | 5                           |
| Dr    | Wondafrash   | Ethiopia  | Eth Wildl & Nat Hist Soc | M      | B    | 10                          |

## 5. Service rendering

### **Objective**

A medium-term objective is to establish formal contact with a range of conservation agencies and other relevant government bodies, such as the Departments of Environmental Affairs, and Agriculture Forestry & Fisheries, to ensure that the expertise of the CoE can be used to address practical research and information needs. CoE members will also continue to render their services to the broad scientific community and the general public.

### **Progress**

Links continue to be serviced with a diversity of conservation agencies, NGO's, government departments, and industry partners (Table 3). These include the Department of Environmental Affairs, and the Department of Agriculture, Forestry & Fisheries, the South African National Biodiversity Institute (SANBI), South African National Parks, IUCN, Conservation International, Fauna & Flora International, the Royal Society for the Protection of Birds (RSPB), BirdLife South Africa & Zimbabwe, the Endangered Wildlife Trust, the Namibian Ministry of the Environment, the Wildlife Conservation Society, the Nature Conservation Corporation, the South African Deep Sea Trawling Industry Association and Irvin & Johnson.

CoE members served on 18 scientific journal editorial boards, 47 membership and advisory services, and reviewed 158 papers for 64 peer-reviewed international and local journals during 2012 (see below).

## **Positions on Editorial Boards, Councils, Advisory/Steering Committees, etc. in 2012**

### **Editorial Boards (18)**

- *African Journal of Ecology* (International Review Panel; Barnard)
- *African Journal of Marine Science* (Editorial advisory board; Pistorius)
- *Animal Conservation* (Associate Editor; Amar, Barnard)
- *Antarctic Science* (Associate Editor; Ryan)
- *Biological Conservation* (Editorial Board; Hockey)
- *Bird Conservation International* (Associate Editor; Ryan)
- *BMC Evolutionary Biology* (Editorial Board; Bowie)
- *Ecology: Conservation and Restoration* (Associate Editor; Ryan)
- *Diversity and Distributions* (Associate Editor; Cumming)
- *Ecology & Society* (Associate Editor; Cumming)
- *Emu* (Associate Editor; McKechnie)
- *Ibis* (Editor; Bowie, Associate Editor; Amar, Pichegru, Wanless)
- *ISRN Ecology* (Editor; Ridley)
- *ISRN Zoology* (Associate Editor; Pistorius)
- *Landscape Ecology* (Editorial Board; Cumming)
- *National Geographic News Watch* (Contributing Editor; Boyes)
- *Ostrich – Journal of African Ornithology* (Associate Editors; Bowie, McKechnie, Ridley) (Book Review Editor; Koopman)
- *Public Library of Science* (PLoS – International Advisory Group; Hockey)

## **Membership & Advisory services (47)**

- ACAP Taxonomy Working Group (Ryan)
- *Africa Birds and Birding* (scientific advisors: Hockey, Ryan)
- *Africa Geographic* (Director: Boyes)
- *African Birdlife* (scientific advisors: Hockey, McKechnie, Ryan)
- African Seabird Group (Pichegru, Ryan, Wanless)
- American Ornithologists' Union (Bowie, McKechnie)
- American Physiological Society (McKechnie)
- Association for the Study of Animal Behaviour (Flower)
- BirdLife SA Conservation Advisory Committee (Members: Hockey, Barnard, Ryan)
- BirdLife SA Council (President: Ryan; ex-officio member: Hockey)
- British Ecological Society (Boyes, Hockey, Ridley)
- British Ornithologists' Union (Council: Bowie, Hockey, Spottiswoode; Member: Cunningham)
- Cambridge Philosophical Society (Ridley)
- Cooper Ornithological Society (Bowie, McKechnie)
- Earth-Touch (Scientific Advisory Board members: Hockey, Ryan, Little)
- Echo – Caribbean Parrot Conservation (Chairman: Martin)
- Ecological Society of America (Cumming, Hockey)
- Endangered Wildlife Trust Threatened Grassland Species Programme Advisory Group (Little, McKechnie)
- Faculty Member, 'Faculty of 1000'. See <http://f1000.com/> (Cumming)
- International Ornithologists' Union (Fellows; Crowe, Hockey)
- International Parrot Research Group (Africa Coordinators: Boyes, Martin)
- International Society for Behavioural Ecology (Ridley, Spottiswoode)
- IUCN Vulture Specialist Group (Krueger)
- Mabula Ground Hornbill Advisory Board (Vice Chairman: Little)
- Mazda Wildlife Fund Advisory Board (Little)
- National Zoological Gardens Ethics & Scientific Committee (McKechnie)
- Red Data Book revision steering group (Amar, Barnard)
- Resilience Alliance (Cumming)
- Royal Society of South Africa (Hockey)
- SAFRING Steering Committee (Barnard, Hockey)
- Society for Conservation Biology (Barnard, Cumming)
- Society for Integrative and Comparative Biology (McKechnie)
- Society for the Study of Evolution (Oatley)
- Society for Systematic Biology (Bowie)
- Society for the Study of Evolution (Bowie)
- South African Biosystematics Initiative Steering Committee (Bloomer)
- South African Bird Atlas Project 2 Steering Committee (Barnard, Ryan)
- South African Young Academy of Science (Founder member: McKechnie)
- Southern African Bird List Committee (Bowie, Hockey, Ryan)
- Southern African Society for Systematic Biology (President: Bloomer; Member: Nupen)
- Southern African Wildlife Management Society (Little)
- Southern Ground-Hornbill Action Group (Little)
- Tristan's Biodiversity Advisory Group (Ryan)
- Wild Bird Trust (Director & Trustee: Boyes)
- World Parrot Trust Africa (Director: Boyes)
- World Bird List Committee (Bowie, Ryan)

- World Seabird Union (Africa representative: Wanless)
- Zoological Society of Southern Africa (Council: McKechnie; Members: Krueger, Little)

### ***Manuscripts reviewed for scientific journals during 2012***

*African Journal of Ecology* (1 Barnard, 4 Boyes, 1 Wanless)  
*African Journal of Ecology* (2 Barnard)  
*African Journal of Marine Science* (1 Pistorius, 1 Ryan)  
*African Zoology* (1 Boyes, 1 Cumming, 1 McKechnie)  
*American Naturalist* (1 Bowie, 1 Covas, 1 Cumming, 1 Spottiswoode)  
*Animal Behaviour* (1 Flower, 3 Ridley)  
*Animal Conservation* (1 Amar, 1 Martin)  
*Antarctic Science* (2 Ryan)  
*Ardea* (1 Ridley)  
*Austral Ecology* (1 McKechnie)  
*Behaviour* (1 Covas)  
*Behavioral Ecology* (1 Covas, 2 Ridley)  
*Behavioural Ecology & Sociobiology* (1 Flower, 4 Ridley)  
*Biology Letters* (1 McKechnie, 1 Ridley, 1 Spottiswoode)  
*Bird Conservation International* (1 Pichegru, 1 Ryan)  
*Bird Study* (2 Amar, 1 McKechnie)  
*BMC Evolutionary Biology* (3 Bowie)  
*Bulletin of the African Bird Club* (1 Ryan)  
*Comparative Biochemistry and Physiology* (1 McKechnie)  
*Current Zoology* (1 McKechnie, 1 Ridley)  
*Diversity and Distributions* (1 Barnard, 1 Joseph)  
*Ecology* (1 Ryan, 1 Spottiswoode)  
*Ecosystems* (2 Cumming)  
*Emu* (1 Bowie, 1 Martin, 1 Ridley, 1 Ryan, 1 Spottiswoode)  
*Endangered Species Research* (1 Ryan)  
*Environmental Monitoring and Assessment* (1 Ryan)  
*Evolution* (3 Bowie, 1 Ryan)  
*Evolutionary Ecology* (1 Bowie)  
*Functional Ecology* (2 McKechnie)  
*Geophysical Research Letters* (1 Ryan)  
*Global Change Biology* (1 Barnard, 1 Cumming, 1 McKechnie)  
*Global Environmental Change* (1 Cumming)  
*Hydrobiologia* (1 McKechnie)  
*Ibis* (2 Amar, 5 Bowie, 2 Lee, 1 McKechnie, 2 Oatley, 1 Wanless)  
*ISRN Ecology* (3 Ridley)  
*Journal of African Ecology* (1 Joseph)  
*Journal of Animal Ecology* (2 Ridley)  
*Journal of Applied Ecology* (1 Joseph, 2 Pichegru, 1 Ryan)  
*Journal of Avian Biology* (1 Flower)  
*Journal of Biogeography* (1 Bowie, 1 Cumming, 1 McKechnie)  
*Journal of Comparative Physiology B* (4 McKechnie)  
*Journal of Ethology* (1 Ridley)  
*Journal of Experimental Biology* (2 McKechnie, 1 Pichegru)  
*Journal of Field Ornithology* (1 Cook, 1 Mullers)  
*Journal of Mammalogy* (1 McKechnie)  
*Journal of Ornithology* (2 Mullers)

*Journal of Royal Society Interface* (1 Cumming)  
*Journal of Zoology, London* (1 McKechnie, 1 Pistorius)  
*Marine Biology* (1 Cook)  
*Marine Ecology Process Series* (1 Cumming)  
*Marine Ornithology* (1 Wanless)  
*Marine Pollution Bulletin* (2 Ryan)  
*Methods in Ecology and Evolution* (1 McKechnie)  
*Molecular Phylogenetics & Evolution* (3 Bowie, 1 Spottiswoode)  
*Oecologia* (1 Joseph)  
*Ostrich* (1 Boyes, 1 McKechnie, 1 Mullers, 1 Oatley, 1 Ridley)  
*Physiological and Biochemical Zoology* (2 McKechnie)  
*PLoS One* (2 Bowie, 2 Cunningham, 3 McKechnie, 1 Ridley)  
*Polar Biology* (2 Pistorius)  
*Proceedings of the National Academy of Sciences* (2 Barnard, 1 McKechnie)  
*Proceedings of the Royal Society of London B* (1 Covas, 1 Ridley)  
*Rapid Communications in Mass Spectrometry* (1 McKechnie)  
*South African Journal of Science* (1 Ryan)  
*South African Journal of Wildlife Research* (1 Little, 1 McKechnie, 1 Pistorius, 1 Ryan)

Members of the PFIAO CoE Nelson Mandela Bay penguin research team have been comparing two management strategies to increase African Penguin breeding success which has resulted in the consistent culling of Kelp Gulls by SANParks on Bird Island, Eastern Cape, as well as changing the design of artificial burrows, from fiberglass to cement pipes cut in half, which are successfully increasing penguin chick survival. This year results from the experimental fishing exclusion around some African Penguin colonies brought enough evidence to close the world's largest African Penguin colony more permanently to purse-seine fishing. Discussion between the Island Closure Task Team and DAFF to set up this extended closure zone are well under way. Post-doc Timothée Cook also advised the Robben Island Museum on various strategies to protect cormorant breeding colonies from human disturbance.

**Table 3. Current projects which influence conservation policy and management**

| Project title                                | Service agency   | Project team                           | Focal policy   |
|--|--|--|--|
| Shoebill conservation                        | African Parks Trust & the Bangweulu Wetlands Trust         | Arjun Amar & Ralf Mullers              | Wetland & eco-tourism management in Zambia           |
| Bearded Vultures                             | Lesotho Alternative Energy Commission                      | Arjun Amar & Sonja Krueger             | Wind energy development in Lesotho                   |
| Waterfowl movements and landscape use        | Ezemvelo KwaZulu-Natal Wildlife                            | Graeme Cumming & Dominic Henry         | Wetland conservation management in Kwa-Zulu Natal    |
| Cape Parrot                                  | Amathola District Council                                  | Phil Hockey & Steve Boyes              | Forest resource use & management in the Eastern Cape |
| Southern Ground-Hornbill                     | National SGH Working Group & Mabula GH Project             | Phil Hockey, Rob Little & Kate Meares  | Threatened species conservation action               |
| Egyptian Geese on golf courses               | Steenberg Golf Estate & 15 other Western Cape golf courses | Phil Hockey, Rob Little & Beth Mackay  | Human-wildlife conflict management on golf courses   |
| Grassland birds                              | SANBI  | Andrew McKechnie                       | National grasslands action plans                     |
| Penguins in Nelson Mandela Bay               | Marine & Coastal Management (MCM), Fisheries industry      | Peter Ryan & Lorien Pichegru           | Fishery resource management                          |
| Seabird bycatch                              | MCM, BirdLife SA, Fisheries industry                       | Peter Ryan & Dominic Rollinson         | Fishery techniques & impact management               |
| Cormorant breeding colonies on Robben Island | Robben Island Museum                                       | Peter Ryan, Tim Cook & Richard Sherley | Eco-tourism & disturbance management                 |
| Ludwig's Bustard                             | Eskom  | Peter Ryan, Andrew Jenkins & Jess Shaw | Mitigation of power line impacts                     |

The Cape Parrot project has established the Eastern Cape Forest Research Forum to coordinate forest research and link findings to relevant forest managers. The project has motivated a review of the current *Afrocarpus/Podocarpus* yellowwood harvesting quotas. By the end of 2013, the quota should be set at zero (pending the cancellation of existing permits). Steve Boyes and Rowan Martin were consultants for the World Parrot Trust for the proposal to amend the CITES Appendix I with regard to parrot trade.

Research on the Afromontane forests of Angola is being used to support and guide Angola's Ministry of the Environment to develop a conservation strategy for this endangered habitat, including choosing and designing appropriate protected areas.

The CoE Ludwig's Bustard project contributed information and visuals to a high-level consultancy investigating avian risks for a proposed transmission line through Kyrgyz Republic, Tajikistan, Afghanistan and Pakistan being conducted by Julia Robinson, Willmott, Normandeau Associates linked to Nigel Collar, BirdLife International. In South Africa, research on collision mortality and a large-scale experiment to test the efficacy of line marking devices will be used as guidance for Eskom's future planning of power lines.



## 6. Gender and equity impacts of research

### **Objective**

A medium- to long-term objective is to ensure that gender issues are considered in all aspects of the CoE's work, with the goal of maintaining an equal representation of men and women within the CoE in the long term.

### **Progress**

The CoE continues to be guided by a proactive recruitment policy to attract female postgraduates to ensure gender parity in the CoE student body. This policy has been successful, with 50% of postgraduate students supported by the CoE in 2012 being women (Table 9). The academic and support staff gender profile of the CoE has improved and stands at 47% female. Research project activities are increasingly addressing gender-related issues and community inclusion in the field.

Some research at the PFIAO CoE has broad relevance to women's health and food security. Furthermore, community conservation projects and educational activities often target women to enhance buy-in and compliance from the community and, ultimately, ensure the success of the project.

Overall, in recent years, PFIAO CoE projects have generated 122 jobs (29 full-time jobs and 93 part-time jobs), mostly taken by women, as direct spin-offs from CoE-funded research activities, giving a 'jobs/students' ratio of 1.7:1. These include 19 full-time and 49 part-time jobs in South African previously disadvantaged communities, 10 full-time and 40 part-time jobs in Zambian rural communities, and four part-time jobs in Angola.

### **Some current examples:**

Research at the PFIAO CoE into avian malaria and avian influenza, diseases which affect chickens and other poultry, is providing information that can be used to educate African women about the risks of handling poultry and causes of the spread of these diseases.

The Cape Parrot Conservation Project (CPCP) in the Amatole Mountains of the Eastern Cape aims to plant over 25 000 indigenous tree saplings (predominantly yellowwoods) each year for the next two years and erect over 600 artificial nest boxes for parrots in suitable trees throughout the Hogsback area. We have injected much-needed investment into a poorly managed, community-run indigenous tree nursery previously funded by the Danish government, by buying up their entire stock of 5 000 indigenous tree saplings. We are teaching local women to use "worm farms" to produce fertilizer and grow their own yellowwood saplings in the potting bags provided. Teams of five local women are supervised by our Community Liaison Officer (jointly employed by the PFIAO CoE and BirdLife South Africa) planting up to 1 000 saplings in a designated forest patch. They are then trained how to care for these indigenous tree saplings and, following an audit by the Community Liaison Officer, are paid R10 per sapling every six months (i.e. up to R50 000 each year). The project has also taken over the management of a pecan nut orchard in the grounds of the University of Fort Hare near Alice, where over 280 Cape Parrots feed daily for more than four months of the year. We have fenced this pecan orchard and have contracted women from the local community to gather the pecan nuts, de-shuck and package them. Revenue from this small business is shared between the local women and the management of the pecan orchard. In addition, the project has initiated the Green Campus Initiative at Fort Hare by planting 750 indigenous trees (wild olives & wild plums)

with the Student Representative council and the International Leadership Council hosted by Fort Hare.

- 1) CPCP has employed 21 black men and 10 black women in tree-planting teams (one per household) that are paid R120 per day (including food and uniform).
- 2) CPCP pays a community reward every 6 months for taking care of trees planted near specific villages. Rewards are being paid to Sompondo Village (R5 000 to 42 black people) and Hala Village (R3 000 to 61 black people).
- 3) CPCP has 25 micro-nurseries in local villages with 17 black women and 8 black men being paid R10 per indigenous sapling they grow.
- 4) CPCP employs 3 black men as forest plot managers (2 days per week) and pays them R1 200 per month.
- 5) CPCP has employed 7 black women and 4 black men in seed-collecting teams that are paid R100 per bag (and can earn up to R300 per day).
- 6) CPCP has employed 4 black men to build Cape Parrot nest boxes and pays them R150 per nest box.
- 7) CPCP employs a black male Community Manager from the local village that earns R4 000 per month.
- 8) CPP employs a black male Research Assistant from the local village that earns R3 000 per month.
- 9) CPCP runs the "Green Campus Initiative" at the University of Fort Hare (Alice) where over 50 students have been involved in planting and care of trees.
- 10) CPCP has donated 150 yellowwood trees to Hobbiton-on-Hogsback for school children to plant during field trips to the youth centre.

Research results from the CoE's seabird and fishing industry programme have initiated the use of bird scaring lines (BSLs) to minimize the incidence of seabird by-catch. This has created the opportunity for 10 disadvantaged Coloured people in the Oceanview community, Kommetjie, 5 males and 5 females, ranging from 22 to 71 years old, to create a micro-industry to make BSLs. The older people in the project are able to pass on their skills and knowledge to the younger members of the team. They are able to build a longline BSL in about two hours and a deep-sea trawl line in about one hour. They sell the completed lines for R150 per line and are thus able to bring some money back into the community. Some of the team are ex fishermen and now regard this as an alternative livelihood. This project also receives funds from Total to assist with the cost of the materials, etc.

As in previous years, the brood parasite project in Zambia run by Claire Spottiswoode has provided a much needed source of cash income to over 40 local people, mostly otherwise unemployed farm labourers, including the equivalent of full time employment to 10 people. Claire is also a Mentor for the British Ecological Society's mentorship scheme for women in ecology.

The Shoebill project hired two local research assistants of which one was promoted to become the community development facilitator for the Bangweulu Swamps. During the breeding season we also hired three Shoebill guards to monitor and protect the nests. Two of these guards were paid by African Parks and one from the Shoebill research project budget.

The Fitz CoE Mandela Bay research team has been training formerly disadvantaged rangers from SANParks to collect penguin data on Bird Island in the Eastern Cape.

The pattern and process spatial ecology project has over the past four years employed Chizarira National Park rangers and ancillary staff, and a Zimbabwean field-botanist, which resulted in the voluntary involvement of a number of National Park staff in the project. The project served a role in re-kindling research interest from the present warden. The overall effect has been to draw renewed attention to both conservation and research in an area that has not been a focus of attention for some time. It has also led to both regional and international knowledge-sharing, as students from the University of Zimbabwe have worked with, and collaborated with our team members. The composition of the team has been diverse, drawing researchers from the United States (2 MSc students), South Africa (2 MSc and one PhD student), and Zimbabwe (2 MSc students). It has also incorporated scientific researchers from the South African National Biodiversity Institute in both fieldwork and collaboration (Drs Seymour and Altwegg), and has led to bilateral exchange with members of the National Herbaria of Harare and Pretoria. Such exchange contributes significantly to the academic profile of the CoE. Projects of this nature, combined with enthusiastic engagement from staff (as was the case with the newly appointed warden of Chizarira) emphasize and enhance the 'existence value' of such areas, which are currently under severe pressure as anthropogenic land-use focuses on new areas for agriculture and grazing land, and the conservation value of this needs no further elaboration.

The project at Mount Moco in Angola has employed, on a part-time basis, four young men from the Kanjonde community to run a nursery with forest species that will be used to expand the remaining forest fragments. The project is also promoting Mount Moco as a tourist destination, increasing the work opportunities for the local guides.

The Fork-tailed Drongo project has hired a Tswana research assistant from the local community at the research site in Vanzylsrus, Northern Cape.

Peter Ryan donated a signed copy of his Photographic Field Guide to the Birds of Southern Africa to the EcoSchool learners and teachers of the Roman Catholic Primary School in Port Nolloth, Northern Cape. The children competed in a wetlands based treasure hunt during January 2012 and the winning team, Die Pikkewyne, won a set of nature books and DVDs, including the book, as resources for their school. They loved the bird book, and were particularly excited that Peter had signed it personally and wished them well! Peter was sincerely thanked by Conservation South Africa, Working for Wetlands, the Department of Environment and Nature Conservation and the Richtersveld Community Work Programme for the book donation.

## HUMAN RESOURCES

The following people worked within the CoE during 2012.

**Table 4. Core CoE team members for 2012**

| Title  | Name             | Citizen | Institution | Gender | Race | H-index* |                | % time working in CoE |
|--------|------------------|---------|-------------|--------|------|----------|----------------|-----------------------|
|        |                  |         |             |        |      | ISI      | Google Scholar |                       |
| Dr     | Colleen O’Ryan   | SA      | UCT         | F      | B    | 10       | 10             | 5                     |
| Prof.  | Paulette Bloomer | SA      | U. Pretoria | F      | W    | 13       | 15             | 10                    |
| Dr     | Arjun Amar       | UK      | UCT         | M      | W    | 10       | 13             | 100                   |
| A/Prof | Rauri Bowie      | SA      | U.Cal. Berk | M      | W    | 18       | 21             | 30                    |
| Prof.  | Graeme Cumming   | SA      | UCT         | M      | W    | 24       | 29             | 100                   |
| Prof.  | Tim Crowe        | USA     | UCT         | M      | W    | 23       | 26             | 100                   |
| Prof.  | Phil Hockey      | UK      | UCT         | M      | W    | 26       | 29             | 100                   |
| Dr     | Pierre Pistorius | SA      | NMMU        | M      | W    | 13       | 13             | 30                    |
| A/Prof | Andrew McKechnie | SA      | U. Pretoria | M      | W    | 14       | 17             | 30                    |
| A/Prof | Peter Ryan       | SA      | UCT         | M      | W    | 32       | 38             | 100                   |

\* H-index scores as calculated on 18 January 2013

**Table 5. Honorary Profs & Research Associates for 2012**

| Title | Name                | Citizen     | Institution       | Gender | Race | % time spent working in CoE |
|-------|---------------------|-------------|-------------------|--------|------|-----------------------------|
| Dr    | Phoebe Barnard *    | UK          | SANBI             | F      | W    | 10                          |
| Dr    | Rita Covas          | Portugal    | CEFE-CNRS, France | F      | W    | 80                          |
| Prof. | Sue Milton *        | SA          | UCT               | F      | W    | 20                          |
| Dr    | Amandy Ridley *     | New Zealand | Macquarie U, Aus. | F      | W    | 50                          |
| Dr    | Claire Spottiswoode | SA          | U Cambridge, UK   | F      | W    | 30                          |
| Prof. | David Cumming *     | Zimbabwe    | U Zimbabwe        | M      | W    | 20                          |
| Dr    | David Gremilet *    | France      | CNRS              | M      | W    | 20                          |
| Dr    | Andrew Jenkins      | SA          | UCT               | M      | W    | 20                          |
| Dr    | Anthoni Milewski    | Australia   | Murdoch U, Aus.   | M      | W    | 20                          |
| Dr    | Rob Simmons *       | UK          | UCT               | M      | W    | 40                          |
| Dr    | Ross Wanless *      | SA          | BirdLife SA       | M      | W    | 40                          |

\*Official UCT Honorary Professor or Research Associate

**Table 6. Post-doctoral Fellows for 2012 (all registered at the Fitz CoE, UCT)**

| Title | Name                 | Citizenship | Gender | Race | CoE support level |         |
|-------|----------------------|-------------|--------|------|-------------------|---------|
|       |                      |             |        |      | Bursary           | Running |
| Dr    | Maelle Connan        | France      | F      | W    | Yes               | Yes     |
| Dr    | Susie Cunningham     | New Zealand | F      | W    | Yes               | Yes     |
| Dr    | Alta de Vos          | SA          | F      | W    | Yes               | No      |
| Dr    | Lorien Pichegru      | France      | F      | W    | No                | No      |
| Dr    | Martha Nelson-Flower | Canada      | F      | W    | Yes               | Yes     |
| Dr    | Steve Boyes          | SA          | M      | W    | Yes               | Yes     |
| Dr    | Tim Cook             | France      | M      | W    | No                | Yes     |
| Dr    | Tom Flower           | UK          | M      | W    | Yes               | Yes     |
| Dr    | Alan Lee             | SA          | M      | W    | No                | Yes     |
| Dr    | Rowan Martin         | UK          | M      | W    | No                | No      |
| Dr    | Ralf Mullers         | Netherlands | M      | W    | Yes               | Yes     |
| Dr    | Graeme Oatley        | SA          | M      | W    | No                | Yes     |
| Dr    | Tim Reid             | Australia   | M      | W    | Yes               | Yes     |

**Table 7. Students registered for 2012** (includes 2012-2013 CB MSc cohort)

(\* = thesis students who graduated in 2012; \*\* = CB MSc students who graduated in 2012)

| Name                   | Citizen   | Univ.  | Gender | Race | Degree   | 1 <sup>st</sup><br>year | CoE support level |         |
|------------------------|-----------|--------|--------|------|----------|-------------------------|-------------------|---------|
|                        |           |        |        |      |          |                         | Bursary           | Running |
| Mandiwana, Tshifiwe    | SA        | UCT    | F      | B    | PhD      | 2004                    | No                | No      |
| Okanga, Sharon         | Kenya     | UCT    | F      | B    | PhD      | 2009                    | Yes               | Yes     |
| Kaliba, Potiphar       | Malawi    | UCT    | M      | B    | PhD      | 2007                    | No                | Yes     |
| Ndlovu, Mduduzi*       | Zimbabwe  | UCT    | M      | B    | PhD      | 2007                    | Yes               | Yes     |
| Wala, Zingfa           | SA        | UCT    | M      | B    | PhD      | 2011                    | No                | No      |
| Barquete, Viviane*     | Brazil    | UCT    | F      | W    | PhD      | 2007                    | No                | No      |
| Baum, Julia            | Germany   | UCT    | F      | W    | PhD      | 2012                    | Yes               | Yes     |
| Kruger, Sonja          | SA        | UKZN   | F      | W    | PhD      | 2011                    | Yes               | Yes     |
| Nupen, Lisa            | SA        | UCT    | F      | W    | PhD      | 2008                    | No                | Yes     |
| Rat, Margaux           | France    | UCT    | F      | W    | PhD      | 2012                    | Yes               | Yes     |
| Reynolds, Chevonne     | SA        | UCT    | F      | W    | PhD      | 2012                    | No                | No      |
| Shaw, Jessica          | UK        | UCT    | F      | W    | PhD      | 2009                    | Yes               | No      |
| van de Ven, Tanja      | Dutch     | UCT    | F      | W    | PhD      | 2012                    | No                | Yes     |
| Davies, Owen           | SA        | UCT    | M      | W    | PhD      | 2008                    | No                | Yes     |
| Joseph, Grant*         | SA        | UCT    | M      | W    | PhD      | 2010                    | Yes               | Yes     |
| McInnes, Alistair      | SA        | UCT    | M      | W    | PhD      | 2012                    | Yes               | Yes     |
| Rollinson, Dominic     | SA        | UCT    | M      | W    | PhD      | 2012                    | Yes               | Yes     |
| Smit, Ben              | SA        | U. Pta | M      | W    | PhD      | 2009                    | Yes               | Yes     |
| Thompson, Alex         | UK        | UCT    | M      | W    | PhD      | 2009                    | Yes               | Yes     |
| Mbatha, Hlengiwe **    | SA        | UCT    | F      | B    | MSc CB   | 2011                    | No                | No      |
| Namah, Jayeesh         | Mauritius | UCT    | F      | B    | MSc CB   | 2012                    | No                | No      |
| Peters, Koebraa        | SA        | UCT    | F      | B    | MSc CB   | 2012                    | No                | No      |
| Sebele, Lovelater **   | Zimbabwe  | UCT    | F      | B    | MSc CB   | 2011                    | Yes               | Yes     |
| Mitiku, Asefa          | Ethiopia  | U. Pta | M      | B    | MSc      | 2011                    | No                | Yes     |
| Taugben, Darlington ** | Liberia   | UCT    | M      | B    | MSc CB   | 2011                    | No                | No      |
| Best, Nikki **         | USA       | UCT    | F      | W    | MSc CB   | 2011                    | No                | No      |
| Cerfonteyn, Mia        | SA        | UCT    | F      | W    | MSc      | 2011                    | Yes               | No      |
| Cohen, Lea             | USA       | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Cressey, Emily **      | UK        | UCT    | F      | W    | MSc CB   | 2011                    | No                | No      |
| de Vos, Lauren **      | SA        | UCT    | F      | W    | MSc CB   | 2011                    | Yes               | No      |
| Forsythe, Katherine    | Australia | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Greenston, Jessica     | USA       | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Liebau, Vera           | Germany   | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Madden, Christine      | SA        | UCT    | F      | W    | MSc CB   | 2012                    | Yes               | No      |
| McCarter, Jenneca **   | USA       | UCT    | F      | W    | MSc CB   | 2011                    | No                | No      |
| Moore, Christine **    | Canada    | UCT    | F      | W    | MSc CB   | 2011                    | No                | No      |
| Palframan, Loieuse     | SA        | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Retief, Kirsten        | SA        | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Whitfield, Maxine      | SA        | U. Pta | F      | W    | MSc      | 2012                    | Yes               | No      |
| Sanguinetti, Carolyn   | UK        | UCT    | F      | W    | MSc CB   | 2012                    | No                | No      |
| Cloete, Daniel         | SA        | UCT    | M      | W    | MSc CB   | 2012                    | Yes               | No      |
| de Greef, Kimon        | Dutch     | UCT    | M      | W    | MSc CB   | 2012                    | No                | No      |
| Goss, Jeremy **        | SA        | UCT    | M      | W    | MSc CB   | 2011                    | No                | No      |
| Green, David           | SA        | NMMU   | M      | W    | MSc      | 2012                    | Yes               | Yes     |
| Gwynn, Lisle           | UK        | UCT    | M      | W    | MSc      | 2011                    | Yes               | Yes     |
| Harding, Craig         | Canada    | UCT    | M      | W    | MSc CB   | 2012                    | No                | No      |
| Henry, Dominic         | SA        | UCT    | M      | W    | MSc      | 2011                    | Yes               | Yes     |
| Heydinger, John        | USA       | UCT    | M      | W    | M. Phil  | 2012                    | Yes               | Yes     |
| Lane, Wade             | SA        | UCT    | M      | W    | MSc CB   | 2012                    | No                | No      |
| Ortmann, Heinz         | SA        | UCT    | M      | W    | MSc CB   | 2012                    | No                | No      |
| Paijmans, Dane         | SA        | UCT    | M      | W    | MSc      | 2012                    | Yes               | Yes     |
| Rice, Edward**         | SA        | UCT    | M      | W    | MSc CB   | 2011                    | Yes               | No      |
| Rishworth, Gavin       | SA        | NMMU   | M      | W    | MSc      | 2012                    | Yes               | Yes     |
| Schutgens, Maurice **  | Dutch     | UCT    | M      | W    | MSc CB   | 2011                    | No                | Yes     |
| Tate, Gareth           | SA        | UCT    | M      | W    | MSc      | 2012                    | Yes               | Yes     |
| van Eeden, Rowen*      | SA        | UCT    | M      | W    | MSc      | 2010                    | Yes               | Yes     |
| Whitehead, Otto        | SA        | UCT    | M      | W    | MSc      | 2012                    | Yes               | No      |
| Wright, Daniel **      | USA       | UCT    | M      | W    | MSc CB   | 2011                    | No                | Yes     |
| Zogby, Blair           | SA        | UCT    | M      | W    | MSc      | 2012                    | Yes               | Yes     |
| Viviers, Bianca        | SA        | U. Pta | F      | W    | BSc Hons | 2012                    | No                | Yes     |

**Table 8. Administrative and Support Staff for 2012**

| Title | Name             | Position              | Based at | Gender | Race |
|-------|------------------|-----------------------|----------|--------|------|
| Ms    | Phelisa Hans     | Library Assistant     | UCT      | F      | B    |
| Mrs   | Tania Jansen     | Snr Secretary         | UCT      | F      | B    |
| Mrs   | Anthea Links     | SAP Administrator     | UCT      | F      | B    |
| Mrs   | Hilary Buchanan  | Administrator         | UCT      | F      | W    |
| Mrs   | Margaret Koopman | Librarian             | UCT      | F      | W    |
| Ms    | Melissa Stander  | Webmaster             | UCT      | F      | W    |
| Dr    | Rob Little       | CoE Manager           | UCT      | M      | W    |
| Mr    | Chris Tobler     | Snr technical officer | UCT      | M      | W    |

**Table 9: Table of CoE Post-doctoral Fellow and Student demographics in 2012**

These figures include CoE-supported students at collaborating institutions.

|          | Black  |      |       | White  |      |       | Total |
|----------|--------|------|-------|--------|------|-------|-------|
|          | Female | Male | total | Female | Male | total |       |
| P-doc    |        |      |       | 5      | 8    | 13    | 13    |
| PhD      | 2      | 3    | 5     | 8      | 6    | 14    | 19    |
| MSc      | 4      | 2    | 6     | 15     | 19   | 34    | 40    |
| BSc Hons |        |      |       | 1      |      | 1     | 1     |
| Total    | 6      | 5    | 11    | 29     | 33   | 62    | 73    |

## OUTPUTS

### Publications during 2012 (Refer to Appendix 1)

Articles in peer-reviewed journals:  
87 papers were published in SCI-ranked journals.

Semi-popular articles:  
40 articles were published in the semi-popular literature.

Books / Chapters in books:  
Seven contributions to book chapters were published.

### Conferences attended during 2012: Meeting (month, place), people who attended

|  |
|--|
| <b>Frontiers in Southern African Ornithology Conference</b> (March; Port Elizabeth, SA) Peter Ryan, Arjun Amar, Andrew McKechnie, Rob Simmons, Mandy Ridley, Rowan Martin, Susie Cunningham, Steve Boyes, Doug Loewenthal, Lorien Pichegru, Sonja Krueger, Jess Shaw, Lisa Nupen, Alex Thompson, Mia Cerfonteyn, Tanja van de Ven, Rowen van Eeden |
| <b>International Blue Swallow Workshop</b> (March; Howick, SA) Andrew McKechnie, Rob Little  |
| <b>Conservation Biology Conference (CBC)</b> (May; Univ. Évora, Portugal) Rita Covas   |
| <b>Southern Ground-Hornbill Science Colloquium</b> (May; Mabula, SA) Rob Little, Kate Mearns   |
| <b>EWT – Birds of Prey Conference</b> (May; De Hoop N.R., SA) Arjun Amar   |
| <b>31<sup>st</sup> Willi Hennig International Society of Systematic Biology meeting</b> (June; California, USA) Tim Crowe, Graeme Oatley   |
| <b>Society for the Study of Evolution (SSE) 1<sup>st</sup> Joint Congress on Evolutionary Biology</b> (July; Ottawa, Canada) Graeme Oatley   |
| <b>15<sup>th</sup> International Wildlife Management Congress (IWMC)</b> (July; Durban, SA) Kate England   |
| <b>Southern African Society for Systematic Biology (SASSB) Conference</b> (July; Arniston, SA) Tim Crowe, Owen Davies, Lisa Nupen  |
| <b>Fynbos Forum</b> (July; Cape St Francis, SA) Phoebe Barnard, Alan Lee   |
| <b>5<sup>th</sup> International Albatross and Petrel Conference</b> (Aug; Wellington, New Zealand) Genevieve Jones   |
| <b>7<sup>th</sup> World Congress of Herpetology</b> (Aug; Vancouver, Canada) Rauri Bowie   |
| <b>5<sup>th</sup> North American Ornithological Conference</b> (Aug; Vancouver, Canada) Rauri Bowie  |
| <b>14<sup>th</sup> International Behavioral Ecology Congress (ISBE)</b> (Aug; Lund, Sweden) Mandy Ridley, Margaux Rat, Claire Spottiswoode, Alex Thompson  |
| <b>Ecological Society of America (ESA) Conference</b> (Aug; Oregon, USA) Graeme Cumming, Sharon Okanga   |
| <b>14<sup>th</sup> International Hibernation Symposium</b> (Aug; Semmering, Austria) Andrew McKechnie  |
| <b>5<sup>th</sup> North American Ornithological Conference</b> (Aug; Vancouver BC, Canada) Ben Smit  |
| <b>Intentionality in Animal Communication Conference</b> (Sept; Zurich, Switzerland) Tom Flower  |
| <b>13<sup>th</sup> Pan-African Ornithological Congress</b> (Oct; Arusha, Tanzania) Tim Crowe, Arjun Amar, Phoebe Barnard, Susie Cunningham, Sonja Krueger  |
| <b>Royal Institute for Humanity and Nature (RIHN) Symposium</b> (Oct; Kyoto, Japan) Graeme Cumming   |
| <b>Contemporary Conservation Conference</b> (Oct; Pietermaritzburg, SA) Steve Boyes, Sonja Krueger   |
| <b>3<sup>rd</sup> Diamond Route Research Conference</b> (Oct; Johannesburg, SA) Andrew McKechnie   |
| <b>Complexity Forum</b> (Oct; Stellenbosch, SA) Julia Baum   |
| <b>Postdoctoral Research Day, Health Sciences Postdoctoral Association</b> (Nov; UCT, SA) Susie Cunningham, Tom Flower   |
| <b>International Symposium on Avian Brood Parasitism</b> (Nov; Hainan, China) Claire Spottiswoode  |
| <b>British Ecological Society Annual meeting</b> (Dec; Birmingham, UK) Rowan Martin  |

## FINANCES

### Audited Income and expenditure for 2012

A copy of the 2012 Income and Expenditure Statement shown below on page 28 (Table 13) is attached to the *Ernst & Young* Audit Report.

Responses to the Audit Report explanations of non-compliance:

In general, all the queries regarding compliance were of little material significance and were clarified to the auditor's satisfaction. The majority of the auditor's queries related to the status of people who used CoE funds with regards to their affiliation with the CoE, the authenticity of travel costs and the details of research field work trips. Various of the issues related to the classification of expenditure items are brought about because of the complexity of accounting categories which we suggest be discussed as a separate agenda item in this CoE Board meeting.

### Annual carry-forward

Annual carry-forward by year, in relation to CoE income and expenditure:

| Year | Income    | Expenditure | Carry-forward |
|------|-----------|-------------|---------------|
| 2004 | 2,025,067 | -158,533    | 1,866,534     |
| 2005 | 4,026,434 | -2,053,076  | 1,973,358     |
| 2006 | 4,153,458 | -2,507,744  | 1,645,714     |
| 2007 | 4,026,610 | -3,201,673  | 824,936       |
| 2008 | 3,463,943 | -2,842,616  | 621,327       |
| 2009 | 3,701,280 | -3,096,507  | 604,773       |
| 2010 | 6,363,448 | -4,845,036  | 1,518,412     |
| 2011 | 6,794,276 | -5,984,777  | 809,499       |
| 2012 | 6,511,535 | -6,416,976  | 120,981       |

Expenditure in 2012 was within budget, leaving only a relatively small carry-forward to 2013 which was due to the fact that the approved 2012 budget was set to slightly exceed expected income for the year. This was a deliberate decision to reduce the size of the annual carry-forward. This is now accommodated for, since the UCT CoE Board members have guaranteed that UCT will award bridging funds at the start of each academic year, before the first CoE payment transfer for the year is made by the NRF. High expenses at the start of the academic year include commitments made late in the previous year, and more specifically, the disbursement of the first annual tranches of student bursaries.



**Co-funding from other sources, and the distribution of funding across the three focal research areas during 2012**

Table 10 reflects the total funding (R12,753,000) for the 28 CoE projects funded by the CoE during 2012, according to the approved 2012 CoE budget and additional funds sourced elsewhere. Table 11 reflects the overall distribution of funds across the three focal research areas during 2012. Research conducted by the PFIAO which is not at least part-funded by the CoE is excluded from the analysis. Likewise, the UCT remuneration of PFIAO staff, and the NRF CoE Corporate Operating budget are also not included.

**Table 10. Distribution of 2012 research funds according to the source of funds**

|                   | DST/NRF   |            | Other sources |            |
|-------------------|-----------|------------|---------------|------------|
|                   | bursary   | running    | bursary       | running    |
| Sub total         | 2,824,000 | 3,126,000  | 1,868,000     | 4,935,000  |
|                   |           | 5,950,000  |               | 6,803,000  |
| <b>Proportion</b> |           | <b>47%</b> |               | <b>53%</b> |

**Table 11. Distribution of 2012 research funds according to the fund source and the focal research areas**

| Fund source                   | Research area | 1          | 2          | 3          | % within source |
|-------------------------------|---------------|------------|------------|------------|-----------------|
| DST/NRF                       | 1             | 913,000    |            |            | <b>16%</b>      |
|                               | 2             |            | 1,284,000  |            | <b>22%</b>      |
|                               | 3             |            |            | 3,649,000  | <b>62%</b>      |
| Other funds                   | 1             | 1,015,000  |            |            | <b>15%</b>      |
|                               | 2             |            | 1,288,000  |            | <b>19%</b>      |
|                               | 3             |            |            | 4,500,000  | <b>66%</b>      |
| Total                         |               | 1,928,000  | 2,572,000  | 8,328,000  |                 |
| <b>% within research area</b> |               | <b>15%</b> | <b>20%</b> | <b>65%</b> |                 |

1 = characterising biodiversity; 2 = evolutionary ecology; 3 = maintaining biodiversity

**Comments on the distribution of CoE and other funds during 2012:**

1. The research funds granted by the DST/NRF represent almost 50% (R5,950,000 of R12,753,000) of the total funds allocated to research within the CoE.
2. The proportional distribution of research area funding from CoE funds is at variance with one-third funding per research area, with the overall variance in favour of conservation science (maintaining biodiversity – 65%), thus satisfying the recommendations of the 2009 review panel.

**Table 12. Other funds secured in 2012 that contributed to NRF funded CoE projects**

| Bursary        |                | Running        |                |                | Total Source     |                  |                                  |
|----------------|----------------|----------------|----------------|----------------|------------------|------------------|----------------------------------|
| 1              | 2              | 3              | 1              | 2              | 3                |                  |                                  |
|                |                |                | 35,000         |                |                  | 35,000           | Univ. Copenhagen                 |
|                |                |                | 400,000        |                |                  | 400,000          | US National Science Foundation   |
|                |                | 55,000         |                |                | 110,000          | 165,000          | THRIP DTI/NRF                    |
|                |                | 200,000        |                |                | 300,000          | 500,000          | Dow                              |
|                |                |                |                |                | 100,000          | 100,000          | ESKOM                            |
|                |                |                |                |                | 160,000          | 160,000          | ABAX                             |
|                |                |                |                |                | 300,000          | 300,000          | DEA                              |
|                |                |                |                |                | 420,000          | 420,000          | OPEP/RSPB                        |
|                |                | 130,000        |                |                | 200,000          | 330,000          | BLSA/ Charl vd Merwe Trust       |
|                |                |                |                |                | 10,000           | 10,000           | BLSA/ATF                         |
|                |                |                |                |                | 15,000           | 15,000           | IAATO                            |
|                |                |                | 100,000        |                |                  | 100,000          | Lund/EU                          |
|                |                |                | 50,000         |                |                  | 50,000           | Univ. Pretoria                   |
|                |                |                |                |                | 50,000           | 50,000           | Klaserie Priv Nat Res            |
|                |                | 85,000         |                |                | 200,000          | 285,000          | UCT URC 'hot birds'              |
|                | 283,000        |                |                | 80,000         |                  | 363,000          | The Royal Society                |
|                | 480,000        |                |                | 50,000         |                  | 530,000          | Macquarie Univ                   |
|                |                |                |                | 150,000        |                  | 150,000          | Portugese Science Foundation     |
|                | 205,000        |                |                | 40,000         |                  | 245,000          | French Research Ministry         |
|                |                |                |                |                | 35,000           | 35,000           | OCP funds                        |
|                |                |                |                |                | 574,000          | 574,000          | Conservation International CEPF  |
|                |                |                |                |                | 280,000          | 280,000          | Hans Hoheizen Charitable Trust   |
|                |                |                |                |                | 140,000          | 140,000          | National Geographic Soc          |
|                |                |                |                |                | 20,000           | 20,000           | URC Cumming                      |
|                |                |                |                |                | 80,000           | 80,000           | NRF incentive Cumming            |
|                |                |                |                |                | 25,000           | 25,000           | NRF McKechnie                    |
|                |                |                |                |                | 100,000          | 100,000          | NSF Wolf                         |
|                |                |                |                |                | 23,000           | 23,000           | IdentiPet                        |
|                |                |                |                |                | 50,000           | 50,000           | Frankfurt Zoological Society     |
|                |                |                |                |                | 333,000          | 333,000          | WWF-NL                           |
|                |                |                |                |                | 70,000           | 70,000           | KZN Wildlife                     |
|                |                |                |                |                | 110,000          | 110,000          | Wildlands Trust                  |
|                |                |                |                |                | 70,000           | 70,000           | EWT                              |
|                |                |                |                |                | 240,000          | 240,000          | Maluti Drakbrg Transfrnt Project |
|                |                |                |                |                | 15,000           | 15,000           | IUCN Vulture Specialist Group    |
| 430,000        |                |                |                |                |                  | 430,000          | Clancey bequest                  |
| <b>430,000</b> | <b>968,000</b> | <b>470,000</b> | <b>585,000</b> | <b>320,000</b> | <b>4,030,000</b> | <b>6,803,000</b> |                                  |

1 = characterizing biodiversity

2 = evolutionary biology

3 = maintaining biodiversity

**DST/NRF CoE**  
**Birds as Keys to Biodiversity Conservation at the Percy FitzPatrick Institute**

**CASH FLOW ANALYSIS FOR THE 2012 FINANCIAL YEAR**

| DESCRIPTION                        | Jan-12        | Feb-12           | Mar-12           | Apr-12         | May-12         | Jun-12          | Jul-12           | Aug-12           | Sep-12           | Oct-12         | Nov-12         | Dec-12        | TOTAL         | Annual Budget | VARIANCE |
|------------------------------------|---------------|------------------|------------------|----------------|----------------|-----------------|------------------|------------------|------------------|----------------|----------------|---------------|---------------|---------------|----------|
| NRF                                |               | 2,805,768        |                  |                |                |                 | 2,805,768        |                  |                  |                |                |               | 5,611,535     | 5,611,535     | 0        |
| Interest                           | 90,321        |                  |                  |                |                |                 |                  |                  |                  |                |                |               | 90,321        | 90,321        | 0        |
| Other (incl. c/f from 2011)        | 809,499       |                  |                  |                |                |                 |                  |                  |                  |                |                |               | 809,499       | 809,499       | 0        |
| <b>TOTAL INCOME</b>                | 899,820       | 2,805,768        | 0                | 0              | 0              | 0               | 2,805,768        | 0                | 0                | 0              | 0              | 0             | 6,511,355     | 6,511,355     | 0        |
| Salaries                           | -82,870       | -74,525          | -75,311          | -64,683        | -70,403        | -59,286         | -65,627          | -64,522          | -62,320          | -68,107        | -117,949       | -70,864       | -876,468      | 802,000       | -74,468  |
| Student costs                      | -591,615      | -561,620         |                  | -241,825       | -121,140       | -646,800        |                  | -94,200          |                  | -43,000        | -61,600        |               | -2,361,800    | 2,824,000     | 462,200  |
| Conferences (incl. Travel)         |               | -31,419          | -106,047         | -96,886        | -40,651        | -75,864         | -42,289          | -12,541          | -17,899          | -30,479        | -41,142        | -2,354        | -497,572      | 340,000       | -157,572 |
| Equipment                          |               |                  |                  |                |                | -70,000         |                  |                  |                  |                |                |               | -70,000       | 0             | -70,000  |
| Running                            | -135,749      | -414,271         | -110,218         | -319,018       | -117,958       | -242,769        | -214,061         | -258,670         | -123,647         | -226,225       | -436,405       | -20,838       | -2,619,829    | 3,056,000     | 436,171  |
| <b>TOTAL EXPENSES</b>              | -810,234      | -1,081,835       | -291,575         | -722,412       | -350,152       | -1,094,719      | -321,978         | -429,934         | -203,866         | -367,810       | -657,096       | -94,056       | -6,425,668    | 7,022,000     | 596,332  |
| <b>NET OUTCOME<br/>PROFIT/LOSS</b> | <b>89,586</b> | <b>1,813,518</b> | <b>1,521,943</b> | <b>799,531</b> | <b>449,379</b> | <b>-645,341</b> | <b>1,838,449</b> | <b>1,408,516</b> | <b>1,204,649</b> | <b>836,839</b> | <b>179,743</b> | <b>85,687</b> | <b>85,687</b> |               |          |

Notes:

- 1 Balance brought fwd matches prev. yr Financial Statement.
- 2 Shows actual expenditure only (excluding commitments) for all months
- 3 Reflects the entire costs of the CoE including satellite campuses
- 4 Regards income as positive cash flow and expenditure as negative cash flow
- 5 Emailed to AZondi@nrf.ac.za not later than 15 days after the month end

**Table 13. PFIAO CoE Financial Statement, January to December 2012**

|                                  | <b>Operating Fund</b> | <b>Invested Fund</b> | <b>All Funds</b> |               |
|----------------------------------|-----------------------|----------------------|------------------|---------------|
| <b>Brought forward from 2011</b> |                       | -445 203.55          | -481 220.06      | -926 423.61   |
| <b>Income</b>                    |                       | -5 611 535.00        | -12 773.46       | -5 624 308.46 |
| NRF income                       | -5 611 535.00         |                      |                  |               |
| Other income                     |                       |                      |                  |               |
| Investment income                |                       | -12 773.46           |                  |               |
| <b>Net transfer value</b>        |                       | -480 000.00          | 480 000.00       | -             |
| CR transfer                      | -480 000.00           | 480 000.00           |                  |               |
| DR transfer                      |                       |                      |                  |               |
| <b>Expenditure</b>               |                       | 6 416 976.88         |                  | 6 416 976.88  |
| Salaries total                   | 876 467.70            |                      |                  |               |
| Bursaries                        | 2 361 800.00          |                      |                  |               |
| Conferences                      | 527 353.59            |                      |                  |               |
| Other travel                     | 1 426 987.47          |                      |                  |               |
| Equipment-vehicles               | 70 000.00             |                      |                  |               |
| Equipment-other                  | 335 632.83            |                      |                  |               |
| Computers                        | 57 341.87             |                      |                  |               |
| Running costs                    | 228 492.29            |                      |                  |               |
| Field & lab costs                | 532 901.13            |                      |                  |               |
| <b>Carry forward to 2013</b>     |                       | -119 761.67          | -13 993.52       | -133 755.19   |
| <b>Reconciliation:</b>           |                       |                      |                  |               |
| SAP balance @ 31/12/2012         |                       | 9 198.85             |                  |               |
| Cash in hand                     |                       | -0.07                |                  |               |
| Advances in hand                 |                       | -128 960.45          |                  |               |
| Carry forward to 2013            |                       | -119 761.67          |                  |               |

**Notes:**

- 1) One motor vehicle was purchased in this period.
- 2) No non-specific transfers to other collaborators were made in 2012.
- 3) All funds carried forward to 2013 include advances in hand.
- 4) Balance of invested fund (not included in December interest) = R1,220.06, i.e. total carry forward to 2013 = 119,761.67 + 1,220.06 = R120,981.73

## Appendix 1: Publications for 2012

### Papers in SCI-ranked journals (70)

IF score = Thomson Scientific Impact Factor score

#### Characterising biodiversity (6):

- Cohen, C., Wakeling, J.L., Mandiwana-Neudani, T.G., Sande, E., Dranzoa, C., Crowe, T.M. & Bowie, R.C.K. 2012. Phylogenetic affinities of evolutionarily enigmatic African galliforms: the Stone Partridge *Ptilopachus petrosus* and Nahan's Francolin *Francolinus nahani*, and support for their sister relationship with New World quails. *Ibis* 154:768-780.  
IF 2.43
- Crous, P.W., Groenewald, J.Z., Ryan, P.G. & Wingfield, M.J. 2012. Fungal Planet description sheet 147: *Seiridium phylicae*. *Persoonia* 29: 186-187.  
IF 4.136
- Fuchs, J., Irestedt, M., Fjeldså, J., Couloux, A., Pasquet, E. & Bowie, R.C.K. 2012. Molecular phylogeny of African bush-shrikes and allies: tracing the biogeographic history of an explosive radiation of corvid birds. *Molecular Phylogenetics and Evolution* 64:93-105.  
IF 3.609
- Jansen van Rensburg, A., Bloomer, P., Ryan, P.G. & Bengt Hansson, B. 2012. Genetic variation at the major histocompatibility complex (MHCIIbeta) in *Nesospiza* buntings: Effects of genetic drift and shared ancestral polymorphism. *BMC Evolutionary Biology* 12:e143.  
IF 3.521
- Oatley, G., Voelker, G., Crowe, T.M. & Bowie, R.C.K. 2012. A multi-locus phylogeny reveals a complex pattern of diversification related to climate and habitat heterogeneity in southern African white-eyes. *Molecular Phylogenetics and Evolution* 64:1401-1411.  
IF 3.609
- Voelker, G., Bowie, R.C.K., Wilson, B. & Anderson, C. 2012. Phylogenetic relationships and speciation patterns in an African savanna dwelling bird genus (*Myrmecocichla*). *Biological Journal of the Linnean Society* 106:180-190.  
IF 2.166

#### Evolutionary ecology (33):

- Altwegg, R., Broms, K., Erni, B., Barnard, P., Midgley, G.F. & Underhill, L.G. 2012. Novel methods reveal shifts in migration phenology of Barn Swallows in South Africa. *Proceedings of the Royal Society B* 279:1485-1490.  
IF 6.401
- Caron, A., de Garine-Wichatitsky, M., Ndlovu, M. & Cumming, G.S. 2012. Linking avian communities and avian influenza ecology in southern Africa using epidemiological functional groups. *Veterinary Research* 43:e73.  
IF 4.06
- Child, M.F., Flower, T.P. & Ridley, A.R. 2012. Investigating a link between bill morphology, foraging ecology and kleptoparasitic behaviour in the Fork-tailed Drongo. *Animal Behaviour* 84:1013-1022.  
IF 3.493
- Cook, T.R., Hamann, M., Pichegru, L., Bonadonna, F., Grémillet, D. & Ryan, P.G. 2012. GPS and time-depth loggers reveal underwater foraging plasticity in a flying diver, the Cape Cormorant. *Marine Biology* 159: 373-387.  
IF 2.276

- Cumming, G. S. & Cornélis, D. 2012. Quantitative comparison and selection of home range metrics for telemetry data. *Diversity and Distributions* 18:1057-1065.  
IF 4.83
- Cumming, G.S., Gaidet, N. & Ndlovu, M. 2012. Towards a unification of movement ecology and biogeography: conceptual framework and a case study on Afrotropical ducks. *Journal of Biogeography* 39: 1401-1411.  
IF 4.544
- Cumming, G.S., Paxton, M., King, J., & Beuster, H. 2012. Foraging guild membership explains variation in waterbird responses to the hydrological regime of an arid-region flood-pulse river in Namibia. *Freshwater Biology* 57:1202-1213.  
IF 3.29
- Cumming, G.S., Southworth, J., Xanic J. Rondon, X.J. & Marsik, M. 2012. Spatial complexity in fragmenting Amazonian rainforests: Do feedbacks from edge effects push forests towards an ecological threshold? *Ecological Complexity* 11: 67-74.  
IF 1.926
- Davies, O.R. 2012. Book Review: The reed warblers: diversity in a uniform bird family. *Ostrich* 83:113.  
IF 0.427
- Flower, T.P. & Gribble, M. 2012. Kleptoparasitism by attacks versus false alarm calls in Fork-tailed Drongos. *Animal Behaviour* 83:403-410.  
IF 3.493
- Fort, J., Pettex, E., Tremblay, Y., Lorentsen, S.-H., Garthe, S., Votier, S., Pons, J.B., Siorat, F., Furness, R.W., Grecian, W.J., Bearhop, S., Montevecchi, W.A. & Grémillet, D. 2012. Meta-population evidence of oriented chain migration in Northern Gannets (*Morus bassanus*). *Frontiers in Ecology and Environment* 10:237–242.  
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