

Date of the CVA

13/01/2020

Section A. PERSONAL DATA

Name and Surname	Virginia Aguilar (Morandini) Clapés-Sagañoles		
DNI/NIE/Passport		Age	33
Researcher's identification number	Researcher ID	E-8986-2016	
	Scopus Author ID	56125255300	
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A.1. Current professional situation

Institution	Oregon State University		
Dpt. / Centre			
Address	3080 SE Sternwheeler Dr, 97333-3109, Corvallis		
Phone	(001) 5413602599	Email	virginia.morandini@oregonstate.edu
Professional category	Post Doctoral	Start date	2017
UNESCO spec. code	240106 - Animal ecology		
Keywords	Animal physiology; Conservation biology; Animal ecology; Applied ecology		

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
PhD Integrative Biology	Universidad de Sevilla	2017
Degree in Biology	Universidad de Sevilla	2013

A.3. General quality indicators of scientific production

Total number of papers in SCI journals: 25 (Q1= 19).

Google Scholar: H: 7, i10 index: 6; citations: 207

Reasearch Gate: Score: 23.91; H: 6, i10 index: 5.

Section B. SUMMARY OF THE CURRICULUM

My research in populations ecology has been focused on three main areas including population dynamics modelling, animal physiology and, microbiology and emerging diseases. Through this multifaceted approach, I hope to contribute a novel understanding of the functioning of complex systems under natural variability and human-related disturbances. My research includes the study of population dynamics, by Monte Carlo simulations of demographic events and software applications for the analysis of data from marked individuals (Program Mark and RMark). My position in the Spanish Imperial eagle and Osprey reintroduction projects gave me access to long-term databases for both species. We analyzed the role of age of first breeding (Morandini and Ferrer 2019- Ecology and Evolution), productivity (Morandini et al. 2017-Ecology and Evolution) and sex ratio (Morandini et al. 2019- Journal of Ornithology) as buffers of changes in population size. My current participation in a project evaluating population dynamics of Adélie penguins (*Pygoscelis adeliae*) in the Ross Sea, allowed me to examine a long-term dataset to predict the response of different colonies sizes to demographic anomalies as breeding failures events, decreases in productivity and increase in adult and juvenile mortality (Morandini et al.2019- In revision). Determination of nutritional and physiological conditions can be very important in the understanding of ecological and behavioral issues. Many hypotheses in behavioral ecology rely in differences among individuals in nutritional levels but correlations between body index and biochemical parameters have usually been poor or irrelevant (Morandini et al. 2018- Polar Biology). Our results demonstrate that physiological conditions, in seabirds, clearly can affect behavioral response of nestlings explaining around 41% of the variance observed in behavioral tests (Morandini et al. 2019-Ethology, Ecology and Evolution).

Microbes and parasites, are active players in the regulation of host populations. New developments in genomic sequencing has identified novel viruses including papillomaviruses, polyomavirus, avian influenza virus, among others including emergent diseases, such as feather loss disorder (Morandini et al. 2019- Viruses). Recent observations of stone swallowing behavior in Adélie penguin chicks and the analysis of stomach contents, indicates that stones may play an important role in the acquisition of chicks microbiota (Morandini et al. 2020. In revision). The presence of a new virus Adélie penguin colonies (Morandini et al. 2019- Viruses), raises the question of when some viruses became pathogens and how early life-stages conditions may play a role in life histories. Examining the microbiota composition and the link with virus diversity and life history will be of broad interest across multiple disciplines as an additional tool to understand the changes in demography of long-lived birds (Morandini et al. 2020. In revision).

My position as postdoc at Oregon State University gave me the opportunity to be included in a NSF project focused on population demography of Adélie penguins at the Ross Sea (PIs: Ainley D., Dugger K., Ballard G.) being involved in three Antarctic expeditions to Cape Crozier, Ross Sea. Additionally, the multidisciplinary approach of this project, gave the additional opportunity to create collaborations with with the community of penguin biologists, as well as with virologist and veterinaries .

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

- 1 **Scientific paper**. Morandini, V.; et al. 2019. Identification of a novel Adélie penguin circovirus at Cape Crozier (Ross Island, Antarctica). *Viruses*. 11-12, pp.1088.
- 2 **Scientific paper**. Morandini, V.; et al. 2019. Juvenile Dispersal in an Uninhabited Continent: Young Spanish Imperial Eagles in Africa. *Journal of Ornithology*. pp.1-8.
- 3 **Scientific paper**. Morandini, V.; Ferrer, M. 2019. Nutritional condition determines behavioral response of nestling Black-browed albatrosses to a shy-bold continuum test. *Ecology, Ethology & Evolution*. pp.1-11.
- 4 **Scientific paper**. Morandini, V.; et al. 2019. Skewed sex ratios in a newly established osprey population. *Journal of Ornithology*. pp.1-9.
- 5 **Scientific paper**. Morandini, V.; et al. 2019. The role of age of first breeding in modeling raptor reintroductions. *Ecology and Evolution*. 9-5, pp.2978-2985.
- 6 **Scientific paper**. Ferrer, M.; Morandini, V. 2019. Tick infestations correlates at a Falkland Islands Black-browed Albatross colony. *Polar Biology*. 42-3, pp.625-631.
- 7 **Scientific paper**. Ferrer, M.; et al. 2017. Factors affecting plasma chemistry values of the black-browed albatross *Thalassarche melanophrys*. *Polar Biology*. 40-8, pp.1537-1544.
- 8 **Scientific paper**. Morandini, V.; Ferrer, M. 2017. How to plan reintroductions of long-lived birds. *Plos One*. 12-4, pp.e0174186.
- 9 **Scientific paper**. Morandini, V.; Ferrer, M. 2017. Natal philopatry: local experience or social attraction? An experiment with Spanish Imperial eagles. *Animal Behaviour*. 130, pp.153-157.
- 10 **Scientific paper**. Morandini, V.; et al. 2017. Natural expansion versus translocation in a previously human-persecuted bird of prey. *Ecology and Evolution*. 7-11, pp.3682-3688.

C.2. Participation in R&D and Innovation projects

Adélie penguin response to climate change in the Ross Sea region- A full lifecycle approach National Science Foundation - NSF. David G. Ainley. (Oregon State University). From 01/11/2017.

C.3. Participation in R&D and Innovation contracts

- 1 Benefits associated to mixed colonies of sub-polar seabirds in the Falkland Islands. Falkland Islands Government. Miguel Ferrer. 01/2017-01/02/2017. 5.000 €.
- 2 Population dynamics of Black browed albatrosses in Saunder Island (Falkland Islands) Falkland Islands Government. Miguel Ferrer. From 01/2016. 3.000 €.

C.4. Patents

