

## Curriculum Vitae

---

Name Dr. Krista N Oswald  
Phone +972 53-789-8106 or +1 705 572 6781  
Email address knoswald@gmail.com  
ORCID <https://orcid.org/0000-0001-8745-4432>  
Website <https://kristaoswald.com>

## Education

---

1999–2004 B.A. The University of Calgary, Department of History  
  
2010–2014 H. B.Sc. Dalhousie University, Department of Biology  
Advisor: Prof. Marty L Leonard  
  
2015–2017 M.Sc. Nelson Mandela University, Department of Zoology  
Advisor: Dr. Ben Smit  
Co-Advisor: Dr. Alan TK Lee  
  
2017–2020 Ph.D. Rhodes University, Department of Zoology and Entomology,  
Advisor: Assoc. Prof. Ben Smit  
Co-Advisor: Dr. Alan TK Lee, Dr. Susan J Cunningham, Dr. Shelley A Edwards

## Employment History

---

2022-current Zuckerman Postdoctoral Scholar  
Mitrani Department of Desert Ecology, Jacob Blaustein Institutes for Desert Research  
Ben-Gurion University of the Negev, Israel  
  
2021 Wildlife Biologist & Media Relations  
NorthWinds Environmental Services, Thunder Bay, Canada  
  
2018–2022 Payroll Manager  
Lakeside Catering Services, Huntsville, Canada  
  
2014 Internship (Full-time Contract)  
Smithsonian Migratory Bird Center, Washington DC, USA  
  
2013 Field Biologist (Full-time Contract)  
Dalhousie University, Canada

## Professional Activities

---

### **Significant Professional Consulting**

- 2021            Consultant: Living Sky Education District, Sask, Canada  
Environmental Science 20 and grade 7 Biology
- 2019–2020    Consultant: BirdLife South Africa  
Promotional materials for “Bird of the Year 2021”
- 2018            Advisor: Rooi Els Conservancy  
Risk assessment and mitigation materials

### **Editorial Work**

- 2021-present Associate Editor  
Ostrich: Journal of African Ornithology

### **Peer Reviewer**

- Journals:** Journal of Comparative Physiology B; The Condor; Ibis; Ardea; Ecology and Evolution; Journal of Field Ornithology; Canadian Journal of Zoology; Frontiers in Ecology and Evolution: Ecophysiology; Ostrich: African Journal of Ornithology; Avian Conservation & Ecology; Bird Conservation International; Frontiers in Zoology; Proceedings B; International Journal of Waterbirds
- Abstracts:** International Congress for Conservation Biology 2023
- Grants:** Wilson Ornithological Society 2023, 2024

### **Professional Society Memberships**

- 2022-present        Member, International Society for Behavioral Ecologists
- 2022-present        Member, International Ornithologists’ Union
- 2022-present        Member, Society for Conservation Biology
- 2016-present        Member, Animal Behavior Society
- 2015-present        Member, American Ornithological Society
- 2015-present        Member, British Ornithologists’ Union
- 2020-2023          Member, Association of Field Ornithologists

## Educational Activities

---

### **Supervision**

- 2022-                Klil Shachar, M.Sc. Ben-Gurion University of the Negev

### **Courses**

- 2024                Lecturer. Animal Behavior in the Light of Global Change International Workshop.  
Hatseva, Israel (odedkeynan.wixsite.com/aravaworkshop)

## Curriculum Vitae: Dr. Krista N Oswald

2022-	Lecturer. Biology 136 Science Communication Ben-Gurion University of the Negev
2018-2019	Laboratory Demonstrator. TOO201 Principles in Ecology and Evolution Rhodes University
2016	Laboratory Demonstrator. ZOO221 Animal Physiology Rhodes University
2015	Laboratory Demonstrator. ZOO211 Comparative Vertebrate Anatomy Rhodes University
2013-2014	Teaching Aid. BIOL 1010&1020 Dalhousie University

## Grants, Awards, Scholarships

---

2024	Zuckerman STEM Leadership Program Postdoctoral Scholars Program - 63,000 USD
2023	Blaustein Center for Scientific Cooperation Travel Award – 600 USD
2023	Central Fund for Advanced Study for Scholarship Students - Ben-Gurion University Travel Award - 940 USD
2023	Zuckerman STEM Leadership Program Postdoctoral Scholars Program - 50,000 USD
2023	Blaustein Center for Scientific Cooperation - <i>declined</i> Postdoctoral Fellowship - 22,000 USD
2022	Zuckerman STEM Leadership Program Postdoctoral Scholars Program - 50,000 USD
2022	Blaustein Center for Scientific Cooperation Postdoctoral Fellowship - 22,000 USD
2022	Israeli Academy of Science and Humanities - <i>declined</i> Postdoctoral Fellowship for Foreign Researchers in Israel - 160,000 NIS (~50,000 USD)
2019	Henderson Scholarship 40,000 ZAR (~3,000 USD)

## *Curriculum Vitae: Dr. Krista N Oswald*

- 2019 Ecological Society of America, USA  
Travel Award - 1,000 USD
- 2019 Rhodes University, SA  
Travel Award - 15,000 ZAR (~1,200 USD)
- 2018 Henderson Scholarship  
40,000 ZAR (~3,000 USD)
- 2017 Henderson Scholarship  
40,000 ZAR (~3,000 USD)
- 2017 Rhodes University, SA  
Travel Award - 10,000 ZAR (~850 USD)
- 2016 National Science Foundation, SA  
Free-Standing Scholarship - 60,000 ZAR (~4,500 USD)
- 2016 Nelson Mandela University, SA  
Travel Award - 20,000 ZAR (~2,000 CAD)
- 2016 Wilson Ornithological Society, USA  
Travel Award - 590 USD
- 2016 Nelson Mandela University, SA  
Travel Award - 5,000 ZAR (~400 USD)
- 2015 National Science Foundation, SA  
Free-Standing Scholarship – 60,000 ZAR (~4,500 USD)
- 2015 Nelson Mandela University, SA  
Travel Award - 5,000 ZAR (~400 USD)

### ***Small Research Grants***

- 2023 American Ornithological Society: Postdoctoral Research Award (Oswald, KN)  
Total Funding: 2,500 USD
- 2018 Tygerberg Bird Club: Student Research Grant (Oswald, KN)  
Total Funding: 10,000 ZAR (~750 USD)
- 2017 Tygerberg Bird Club: Student Research Grant (Oswald, KN)  
Total Funding: 10,000 ZAR (~750 USD)

## Curriculum Vitae: Dr. Krista N Oswald

- 2017            Animal Behavior Society: Student Research Grant (Oswald, KN)  
Total Funding: 1,000 USD
- 2017            BirdLife South Africa: Small Research Grant (Oswald, KN)  
Total Funding: 6,000 ZAR (~450 USD)
- 2016            BirdLife South Africa: Small Research Grant (Oswald, KN)  
Total Funding: 7,000 ZAR (~525 USD)

## Scientific Publications

---

### Peer-reviewed Journal Articles

1. Fusco et al. "Population genomic structure of a widespread, urban-dwelling mammal; The eastern gray squirrel (*Sciurus carolinensis*)," 2023, *Molecular Ecology*, doi: <https://doi.org/10.1111/mec.17230>. [Link to article.](#)
2. **Oswald, KN** and SR Conradie. "Variable choice affects estimations of vulnerability to climate change." 2023, *Ibis*, doi:10.1111/ibi.13281 [Link to article.](#)
3. De Zwaan et al. "A global dataset of alpine breeding birds and their ecological traits," 2022, *Scientific Data*, 1–11:9 [Link to article.](#)
4. **Oswald, KN** and ATK Lee "Population Viability Analysis for a vulnerable ground-nesting species, the Cape Rockjumper *Chaetops frenatus*: population declines are explained by increases in juvenile mortality," 2021, *Ostrich*, 1-5:92 [Link to article.](#)
5. **Oswald, KN**, Smit, B, Lee, ATK, Peng, CL, Brock, C, and SJ Cunningham "Higher temperatures are associated with reduced nestling body condition in a range-restricted mountain bird," 2021, *Journal of Avian Biology*, 10.1111/jav.02756 [Link to article.](#)
6. **Oswald, KN**, ATK Lee, B Smit "Seasonal metabolic adjustments in an avian evolutionary relict restricted to mountain habitat," 2021, *Journal of Thermal Biology*, 102815:95 [Link to article.](#)
7. **Oswald, KN**, EF Diener, JP Diener, SJ Cunningham, B Smit, and ATK Lee "Increasing temperatures increase the risk of reproductive failure in an alpine ground-nesting bird, the Cape Rockjumper *Chaetops frenatus*," 2020, *Ibis*, 1363-1369:161 [Link to article.](#)
8. **Oswald, KN**, B Smit, ATK Lee, and SJ Cunningham "Behaviour of an alpine-endemic bird is described mainly by interactions between microsite and air temperature," 2019, *Animal Behaviour*, 177-187:157 [Link to article.](#)
9. **Oswald, KN**, ATK Lee, and B Smit "Comparison of physiological responses to high temperatures in juvenile and adult Cape Rockjumpers (*Chaetops frenatus*)," 2018, *Ostrich* 377-382:89 [Link to article.](#)

10. **Oswald, KN**, ATK Lee, and B Smit "Seasonal physiological responses to heat in an alpine range-restricted bird: the Cape Rockjumper (*Chaetops frenatus*)," 2018, *Journal of Ornithology* 1063-1072:159 [Link to article](#).
11. **Oswald, KN<sup>S</sup>**, AA Evlambiou<sup>S</sup>, ÂM, Ribeiro<sup>PD</sup>, and B Smit<sup>PI</sup> "Tag location and risk assessment for PIT-tagging passerines," 2017, *Ibis*, 453-457:160 [Link to article](#).
12. **Oswald, KN** "Observed instances of alarm calling in the Cape Rockjumper," 2016, *Ostrich*, 285-288:87 [Link to article](#).
13. Leonard ML, AG Horn, **KN Oswald**, E McIntyre, "Effect of ambient noise on parent-offspring interactions in tree swallows," 2015, *Animal Behaviour*, 1-7: 109 [Link to article](#).

### **Non-refereed Professional Publications**

1. **Oswald, KN** "What variable to choose? Implications of variable choice when estimating vulnerability to climate change." BOU blog. Nov 13, 2023. [Link to article](#).
2. **Oswald, KN** "Hot weather leads to unwanted weight loss in young Cape Rockjumpers." Avian Biology blog. Sept 3, 2021. [Link to article](#).
3. **Oswald, KN** "Rockjumpers can't escape their (taxonomic) roots." BOUblog. March 29, 2021. [Link to article](#).
4. **Oswald, KN**. Cape Rockjumper (*Chaetops frenatus*), 2021, version 2.0. In "Birds of the World" (T.S. Schulenberg and B.K. Keeney, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. [Link to article](#).
5. **Oswald, KN** and anonymous authors. "Cape rockjumper" and "Rockjumper" articles on Wikipedia, edited 2020. [Link to article](#) and [Link to article](#).
6. **Oswald, KN** "Fire and ice increase nest success." BOUblog, May 11, 2020. [Link to article](#).
7. **Oswald, KN**, SE Edwards, ATK Lee, SJ Cunningham and B Smit "No evidence of genetic structure in a sky island endemic: implications for population persistence under a shrinking thermal niche." 2020, *Authorea Preprints*. [Link to article](#).
8. **Oswald, KN** and B Smit "Rockjumpers and Climate Change in the Fynbos." African Conservation Telegraph 12, 2019. [Link to article](#).
9. **Oswald, KN** and B Smit. "South Africa's Cape Rockjumper populations are falling and we're not sure why." The Conversation: Africa. May 31, 2018. [Link to article](#).
10. **Oswald, KN** "PIT-tagging passerines – think twice prior to choosing the place." BOUblog. Mar 12, 2018. [Link to article](#).

11. **Oswald, KN** and ATK Lee "Rock kestrel attack on a Cape rockjumper caught in a spring trap." Afring News. Feb 2016. [Link to article](#).

### ***Print Magazine Articles***

1. **Oswald, KN** "Bird of the Year 2021: Cape Rockjumper – Where do Rockjumper Fit In?" African BirdLife Nov/Dec 2021, pg. 71
2. Lee, ATK and **Oswald, KN** "Bird of the Year 2021 – Finding Cape Rockjumper." African BirdLife. Sept/Oct 2021, pg. 73.
3. **Oswald, KN** and ATK Lee "Bird of the Year 2021: Cape Rockjumper – Raising Rockjumper." African BirdLife. Jul/Aug 2021, Pg 73.
4. **Oswald, KN** and ATK Lee "Bird of the Year 2021: Cape Rockjumper – Fynbos and Friends." African BirdLife May/Jun 2021, pg. 68–69.
5. Lee, ATK and **Oswald, KN** "Bird of the Year 2021: Cape Rockjumper – Islands in the Sky." African BirdLife. Mar/Apr 2021, pg. 72.
6. **Oswald, KN** "Bird of the Year 2021: Cape Rockjumper." African BirdLife. Mar/Apr 2021, poster.
7. **Oswald, KN** and ATK Lee "Bird of the Year 2021: Cape Rockjumper – Fynbos Icon." African BirdLife. Jan/Feb 2021, pg. 66
8. **Oswald, KN** "BirdLife South Africa's Bird of the Year 2021: Cape Rockjumper 2021." Institute of Natural Resources, Inc. Feb Newsletter.
9. **Oswald, KN** "Rocky Road." African BirdLife. Mar/Apr 2019, pg. 50-54

## **Lectures and Presentations at Meetings (oldest to newest)**

---

### ***Invited Presentations***

1. 2017 "Adventures in Rockjumper Research: Life in the Sky Islands." FitzPatrick Institute of African Ornithology. Cape Town, South Africa.
2. 2017 "Adventures in Rockjumper Research: Life in the Sky Islands." Tygerberg Bird Club. Cape Town, South Africa.
3. 2018 "Adventures in Rockjumper Research: Life in the Sky Islands." BirdLife Overberg. Hermanus, South Africa.

## Curriculum Vitae: Dr. Krista N Oswald

4. 2019 "Adventures in Rockjumper Research: Life in the Sky Islands." Somerset West Bird Club. Somerset West, South Africa.
5. 2020 "Life in the sky islands: investigating climate sensitivity in a single mountain species revealed unexpected biological interactions." Stoddard Lab, Ecology and Evolutionary Biology. Princeton University. Online.
6. 2021 "Cape Rockjumper: Jumping into the Spotlight for 2021." BirdLife SA Conservation Conversations. Online.
7. 2022 "The Secret World of the Cape Rockjumper." Learn the Birds ([learnthebirds.com](http://learnthebirds.com)). Online.
8. 2023 "Using small footprints to answer big questions: what habitat specialist birds tell us about adjusting to a changing world" Zoology seminar, Tel Aviv University, Israel.
9. 2023 "The Secret World of the Arabian Babbler." Learn the Birds ([learnthebirds.com](http://learnthebirds.com)). Online.
10. 2024 "Using small footprints to answer big questions: what habitat specialist birds tell us about adjusting to a changing world" Zoology seminar, Ben-Gurion University, Israel.

### **Presentations at Conferences**

1. **Oswald, KN**, ML Leonard. 2014. Effects of increased noise on parent-offspring communication in tree swallows. Cameron Conference. Halifax, Canada.
2. **Oswald, KN**, ATK Lee, and B Smit. 2015. Between a rock and a hot place: behavioural responses to climate change in a Fynbos endemic. Combined Congress of the ESSA/ZSSA. Makhanda, South Africa.
3. **Oswald, KN**, ATK Lee, and B Smit. 2016. Threats of climate change to a Fynbos endemic: physiological responses show low heat tolerance thresholds irrespective of season in the Cape rockjumper (*Chaetops frenatus*). North American Ornithological Conference. Washington DC, United States.
4. **Oswald, KN**, ATK Lee, and B Smit. 2017. Threats of temperature in the Cape Rockjumper (*Chaetops frenatus*). FLOCK/LAB. Kruger National Park, South Africa.
5. **Oswald, KN**, ATK Lee, and B Smit. 2017. Do seasonal physiological responses to heat explain climate change vulnerability in a Fynbos endemic bird? Combined Congress of the ESSA/ZSSA. Pretoria, South Africa.
6. **Oswald, KN**, SJ Cunningham, ATK Lee, and B Smit. 2017. An integrative approach to understanding vulnerability of an alpine range-restricted bird to climate warming. DZE Post-Graduate Symposium. Makhanda, South Africa.



7. **Oswald, KN**, EF Diener, JP Diener, SJ Cunningham, B Smit, and ATK Lee. 2019. Multi-directional effects of warming temperatures on the reproductive success of a threatened alpine-endemic bird, and implications for conservation management. Ecological Society of America. Louisville KY, United States.
8. **Oswald, KN**, SJ Cunningham, ATK Lee, and B Smit. 2019. An integrative approach to understanding vulnerability of an alpine range-restricted bird to climate warming. Hot Birds Research Project Workshop. Gobabeb, Namibia.
9. **Oswald, KN**, EF Diener, JP Diener, SJ Cunningham, B Smit, and ATK Lee. 2020. Increasing temperatures drive the risk of reproductive failure in a South African alpine ground-nesting bird, the Cape Rockjumper. North American Ornithological Conference. Online.
10. **Oswald, KN**, and Conradie, SR. 2020. Fine-scale ecological data can result in a more accurate understanding of species' vulnerability to increasing temperatures. FLOCK/LAB. Online.
11. **Oswald, KN**, B Smit, ATK Lee, CL Peng, C Brock, and SJ Cunningham. 2021. Higher temperatures are associated with reduced nestling body condition in a range-restricted mountain bird. Animal Behavior Society. Online. (Session Moderator)
12. **Oswald, KN**, EF Diener, JP Diener, SJ Cunningham, B Smit, and ATK Lee. 2021. Fire and Ice increase nest success in a mountain endemic South African bird. American Ornithological Society & Society of Canadian Ornithologists. Online.
13. **Oswald, KN**. Increasing temperatures are driving population declines in a biodiversity hotspot indicator species, the Cape Rockjumpers (*Chaetops frenatus*). 2021. *In Symposium: "The evolutionary ecology and conservation of mega-diverse tropical montane avifaunas"* American Ornithological Society & Society of Canadian Ornithologists. Online.
14. **Oswald, KN**, B Smit, ATK Lee, CL Peng, C Brock, and SJ Cunningham. 2022. Higher temperatures are associated with reduced nestling body condition in a range-restricted mountain bird. British Ornithologists' Union. Online.
15. **Oswald, KN**, Smit, B, Lee, ATK, Peng, CL, Brock, C and Cunningham, SJ. 2022. Higher temperatures are associated with reduced nestling body condition in a range-restricted mountain bird. British Ornithologists' Union. Online.
16. **Oswald, KN**, Smit, B, Lee, ATK, Peng, CL, Brock, C and Cunningham, SJ. 2022. Higher temperatures are associated with reduced nestling body condition in a range-restricted mountain bird. International Society for Behavioural Ecology. Stockholm, Sweden.
17. **Oswald, KN**, Smit, B, Lee, ATK, Peng, CL, Brock, C and Cunningham, SJ. 2022. Higher temperatures are associated with reduced nestling body condition in a range-restricted mountain bird. International Ornithological Conference. Online.

18. **Oswald, KN** and Lee, ATK. Advancing African Ornithology. 2022. International Ornithological Conference. Roundtable Discussion co-host. Online.
19. **Oswald, KN**, Smit, B, Lee, ATK, and Cunningham, SJ. 2022. Behaviour of a mountain range-restricted species is described by interactions between microsite use and temperature. European Congress for Conservation Biology. Prague, Czechia.
20. **Oswald, KN**, Roll, U, Berger-Tal, O. 2023. The effects of small-scale land-use developments on a desert-dwelling cooperatively breeding bird: buffering oasis or ecological trap? International Congress for Conservation Biology. Kigali, Rwanda, in Symposium (Chair): *Urbanization and Ecological Traps*.
21. **Oswald, KN**, Roll, U, Berger-Tal, O. 2023. The effects of small-scale land-use developments on a desert-dwelling cooperatively breeding bird: buffering oasis or ecological trap? Combined Congress of AOS & SCO. London, Canada.

## Additional Information

---

### On-Screen Consultant, "Terra X: Fascinating Earth"

To be filmed in 2022 in South Africa – *delayed due to COVID19*

[Terra X: Fascinating Earth](#) - ZDF German public broadcasting

### On-Screen Wildlife Rehab Technician, "Hope for Wildlife" - Season 4

Filmed in 2013, Episodes 41–52

[Hope for Wildlife](#) - Arcadia Wild, Oasis HD, The Knowledge Network, and CottageLife

### Radio Interview: Radio France International

<https://www.rfi.fr/en/africa/20200526-wildfire-unlikely-friend-of-south-africas-threatened-cape-rock-jumper-bird-snakes-boomslang>

### Scientific YouTuber

Summary: Short educational videos and travel videos under my personal account with >100K views.

## **Research Synopsis**

---

For how prevalent scientific research into the potential effects of anthropogenic change has been the last few decades, there are still many pervasive and insidious aspects of anthropogenic change left to be found, interpreted, and applied to conservation and policy. My main interest lies at the intersection of changes in basic ecology (e.g. behavior, reproductive success, phenology) and anthropogenic changes to habitat. I am currently researching movement ecology in the Israeli Negev tracking highly social Arabian babblers using a newly erected ATLAS network to examine habitat-use across a human-modified habitat, and how it affects breeding success and social bonds. My previous research was on Cape Rockjumpers, a South African endemic, where I examined how their population decreases may be affected by a combination of increasing temperature, increasing prevalence of wildfire, and decreasing habitat. My research has allowed me to not only develop a strong presence in the scientific community, but also develop the skills to communicate my findings to the non-scientific community as well. In the future, I would like to continue providing insight on how species with specific ecological niches will respond to human-caused alterations of their environment — all with the final goal of providing information that can be applied to active conservation measures and policy implementation.