

Drew T. Cronin, Ph.D.

Curriculum Vitae

Professional and dedicated conservation biologist with 11+ years' experience in the administration of global partnerships, and the organization and implementation of research and conservation projects. Experiential emphasis on primates, central Africa, and technology, especially SMART. Outstanding teaching, research, leadership, and program management skills. Dynamic written and oral communication skills. Adept at building teams to approach complex conservation problems and develop consensus around shared missions. Conscientious and result oriented.

CONTACT

North Carolina Zoo
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EDUCATION

2013 Ph.D. in Environmental Science
Drexel University, Philadelphia, PA
Thesis: The Impact of Bushmeat Hunting on the Primates of Bioko Island, Equatorial Guinea

2006 B.A. in Biology
Arcadia University, Glenside, PA

PROFESSIONAL EXPERIENCE

Associate Curator of International Conservation 10/2019 – Present
North Carolina Zoo, Asheboro, NC

Program Manager, SMART Partnership 12/2016 – 10/2019
Wildlife Conservation Society, Bronx, NY

Postdoctoral Research Fellow, Bioko Biodiversity Protection Program 12/2013 – 11/2016
Drexel University, Department of Biology, Philadelphia, PA

Doctoral Researcher 09/2008 – 12/2013
Drexel University, Department of Biology, Philadelphia, PA

Resident Director, Arcadia University Study Abroad-Equatorial Guinea 08/2007-04/2008
Arcadia University Center for Education Abroad, Glenside, PA

ACADEMIC APPOINTMENTS

2017 – Adjunct Research Scientist
Department of Ecology, Evolution & Environmental Biology (E3B), Columbia University, New York, NY

2011 – 2015 Adjunct Instructor
Department of Biodiversity, Earth & Environmental Science, Drexel University, Philadelphia, PA

2010 – 2013 Graduate Student Instructor
Department of Biology, Drexel University, Philadelphia, PA

PUBLICATIONS

PEER-REVIEWED

- Ingram, D.J., **D.T. Cronin**, D.W.S. Challender, D.M. Venditti, and M.K. Gonder. 2019. Characterising trafficking and trade of pangolins in the Gulf of Guinea. *Global Ecology and Conservation* 17: e00576. <https://doi.org/10.1016/j.gecco.2019.e00576>.
- Forrest, D.L., F. Muatliche, M.K. Gonder, and **D.T. Cronin**. 2017. Primate Communities Along a Protected Area Border: A Two-site Comparison of Abundance and Hunting Response in Bioko, Equatorial Guinea. *African Primates* 12: 23-36. ([LINK](#)).
- Cronin, D.T.**, P.R. Sesink Clee, M.W. Mitchell, D. Bocuma Meñe, D. Fernández, C. Riaco, M. Fero Meñe, J.M. Esara Echube, G.W. Hearn, M.K. Gonder. 2017. Conservation strategies for understanding and combating the bushmeat trade on Bioko Island, Equatorial Guinea. *American Journal of Primatology*: e22663. <https://doi.org/10.1002/ajp.22663>.
- Heritage, S., D. Fernández, H.M. Sallam, **D.T. Cronin**, J.M. Esara Echube, E.R. Seiffert. 2016. Ancient phylogenetic divergence of the enigmatic African rodent *Zenkerella* and the origin of anomalurid gliding. *PeerJ* 4: e2320 <https://doi.org/10.7717/peerj.2320>.
- Cronin, D.T.**, C. Riaco, J.M. Linder, R.A. Bergl, M.K. Gonder, M.P. O'Connor and G.W. Hearn. 2016. Impact of gun-hunting on monkey species and implications for primate conservation on Bioko Island, Equatorial Guinea. *Biological Conservation* 197: 180-189. ([LINK](#))
- Hoffmann, M., **D.T. Cronin**, G.W. Hearn, T.M. Butynski, E. Do Linh San. 2015. A review of evidence for the presence of Two-spotted Palm Civet *Nandinia binotata* and four other small carnivores on Bioko, Equatorial Guinea. *Small Carnivore Conservation* 52 & 53: 13-23. ([LINK](#))
- Cronin, D.T.**, S. Woloszynek, W.A. Morra, S. Honarvar, J.M. Linder, M.K. Gonder, M.P. O'Connor, G.W. Hearn. 2015. Long-term urban market dynamics reveal increased bushmeat carcass volume despite economic growth and proactive environmental legislation on Bioko Island, Equatorial Guinea. *PLoS ONE* 10(7): e0134464. doi:10.1371/journal.pone.0134464. ([LINK](#))
- Cronin, D.T.**, M.B. Libalah, R.A. Bergl, G.W. Hearn. 2014. Biodiversity and conservation of tropical montane ecosystems in the Gulf of Guinea, West Africa. *Arctic, Antarctic, and Alpine Research* 46(4):891-904. ([LINK](#))
- Cronin, D.T.**, J.R. Owens, H. Choi, S. Hromada, R. Malhotra, F. Roser, and R.A. Bergl. 2014. Where has all our research gone? A 20-year assessment of the peer-reviewed wildlife conservation literature. *International Journal of Comparative Psychology* 27(1): 101-116. ([LINK](#))
- Cronin, D.T.**, C. Riaco, and G.W. Hearn. 2013. Survey of Threatened Monkeys in the Iladyi River Valley Region, Southeastern Bioko Island, Equatorial Guinea. *African Primates* 8: 1-8. ([LINK](#))
- ### NON-PEER REVIEWED
- Cronin, D.T.**, D. Bocuma Meñe, C. Perella, D. Fernández, G.W. Hearn, M.K. Gonder. 2015. The Future of the Biodiversity of the Gran Caldera Scientific Reserve: Translating Science into Policy to

Develop an Effective Management Plan for the Gran Caldera Scientific Reserve. Report prepared for the Symposium on the Future of the Biodiversity of the Gran Caldera Scientific Reserve by the Bioko Biodiversity Protection Program, Drexel University, Philadelphia, Pennsylvania. 42 pages. ([LINK](#))

Cronin, D.T., D. Bocuma Meñe, T.B. Butynski, J.M. Esara Echube, G.W. Hearn, S. Honarvar, J.R. Owens, C.P. Bohome. 2010. Opportunities Lost: The Rapidly Deteriorating Conservation Status of the Monkeys on Bioko Island, Equatorial Guinea (2010). A Report to the Government of Equatorial Guinea by the Bioko Biodiversity Protection Program, Drexel University, Philadelphia, Pennsylvania. ([LINK](#))

IN DEVELOPMENT

Cronin, D.T., J.M. Linder, N. Ting, et al. Red Colobus Conservation Action Plan: 2019-2021. (*In Development*).

Cronin, D.T., P.R. Sesink Clee, J.R. Owens, D. Fernández, M. Grande Vega, C. Riaco, F. Rioso Etingue, D.M. Venditti, B.S. Featherstone, J. Gómez Soto, D.A. Ndong Bee, W.A. Morra, M. Fero Meñe, J.M. Esara Echube, M.P. O'Connor, J.E. Fa, G.W. Hearn, M.K. Gonder. Reassessing the distribution and conservation status of diurnal primates in Bioko Island. (*In Development*).

Perella, C., G. Castonguay, E. Reich, J.R. Owens, and **D.T. Cronin**. Comparison of avian diversity in an agricultural-forest matrix on Bioko Island, Equatorial Guinea. (*In Revision*).

SELECTED PRESENTATIONS

Cronin, D.T. SMART: Measuring, evaluating, & improving management effectiveness of protected areas globally. Invited presentation at the regional forum on Technology Solutions for MPA and Fisheries Enforcement and Compliance, Belize City, Belize. *February 2019*.

Cronin, D.T. SMART (Spatial Monitoring and Reporting Tool): Improving effectiveness of protected areas globally. Invited seminar presentation at the Africa Biodiversity Collaborative Group (ABCG): Washington DC Speaker Series. Washington, DC. *November 2018*.

Beale, C., **Cronin, D.T.**, R. Singh, A. Dobson, M. Tambe. Using ranger-generated data for predictive patrol planning. Presentations & panel discussion at the Evidence to Action: Research to Address Illegal Wildlife Trade Conference, London, England. *October 2018*.

Cronin, D.T. The Red Colobus Conservation Action Plan: Catalyzing range-wide conservation efforts. Invited symposium presentation at the XXVII Congress of the International Primatological Society, Nairobi, Kenya. *August 2018*.

Cronin, D.T., E.J. Stokes, R.A. Bergl. SMART implementation to improve effectiveness of primate conservation efforts. Invited symposium presentation at the XXVII Congress of the International Primatological Society, Nairobi, Kenya. *August 2018*.

Cronin, D.T. Big Cats and their Habitats. Invited panelist for World Wildlife Day Roundtable Discussion at the U.S. Department of State, Washington, DC. *March 2018*.

- Cronin, D.T.** A global SMART approach to improving effectiveness of marine protected areas. Podium presentation at the 4th International Marine Protected Areas Congress, La Serena, Chile. *September 2017.*
- Lynam, A.J., E.J. Stokes, J. Palmer, R.A. Bergl, C. Gordon, **Cronin, D.T.** Integrated technology for improving effectiveness of management of poaching in protected areas. Podium presentation at the 28th International Congress for Conservation Biology, Cartagena, Colombia. *July 2017.*
- Cronin, D.T.**, P.R. Sesink Clee, J. R. Owens, D. Fernández, M. Grande Vega, C. Riaco, M. Fero Meñe, J.M. Esara Echube, J.E. Fa, G.W. Hearn, M.K. Gonder. Updating the conservation status of Bioko's diurnal primates using population density estimates and habitat suitability modeling. Invited Symposium presentation at the Joint Meeting of the International Primatological Society and the American Society of Primatologists, Chicago, IL. *August 2016.*
- Cronin, D.T.** Prioritizing Primates: Understanding and combating the bushmeat trade on Bioko Island. Invited seminar presentation at the Warner College of Natural Resources, Colorado State University, Fort Collins, CO. *March 2016.*
- Cronin, D.T.** Primates as umbrella taxa for biodiversity conservation on Bioko Island, Equatorial Guinea. Poster presentation at the American Association for the Advancement of Science (AAAS) 2016 Annual Meetings, Washington, D.C. February, 2016
- Cronin, D.T.** and D. Bocuma Meñe. Visión general del documento "El Futuro de la Reserva Científica de la Gran Caldera". Podium presentation at the Symposium on the Future of the Biodiversity of the Gran Caldera Scientific Reserve, Malabo, Equatorial Guinea. June 2015.
- Cronin, D.T.**, C. Riaco, D. Bocuma Meñe, P.R. Sesink Clee, G.W. Hearn. Impact of gun-hunting on monkey species and implications for primate conservation on Bioko Island, Equatorial Guinea. Invited symposium presentation at the XXV Congress of the International Primatological Society, Hanoi, Vietnam. *August 2014.*
- Cronin, D.T.**, M.B. Libalah, R.A. Bergl, G.W. Hearn. Conservation and management of tropical montane ecosystems in West Africa's Gulf of Guinea. Invited podium presentation at the Inaugural Tropical Mountain Conference "Vulnerable Islands in the Sky: science and management of tropical alpine & sub-alpine ecosystems," Waimea, HI. *August 2012.*
- Cronin, D.T.**, S. Woloszynek, W.A. Morra, S. Honarvar, J.M. Linder, M.P. O'Connor, G.W. Hearn. Emergent trends in an urban bushmeat market on Bioko Island, Equatorial Guinea. Podium presentation at the XXIV Congress of the International Primatological Society, Cancun, Mexico. *August 2012.*
- Cronin, D.T.**, W.A. Morra, R. Aguilar Biacho, G.W. Hearn. Changing composition of the Malabo Bushmeat Market, Bioko Island, Equatorial Guinea. Poster presentation at the XXIII Congress of the International Primatological Society, Kyoto, Japan. *September 2010.*
- Cronin, D.T.**, G.W. Hearn, W.A. Morra, R. Aguilar Biacho. Conservation status of monkeys on Bioko Island, Equatorial Guinea, one year following a Presidential Decree banning the hunting of primates. Poster presentation at the XXIII International Congress for Conservation Biology, Beijing, China. *July 2009.*

Cronin, D.T. Evidence that different social groupings lead to stereotypic behaviors in Black and White Ruffed Lemurs (*Varecia variegata variegata*). Poster presentation at the 37th Arcadia University Biology Capstone Project Presentation, Glenside PA, USA. *Undergraduate Thesis*. May 2006.

RESEARCH & CONSERVATION AWARDS

- 2019 – Present** SMART Major Platform Upgrade including Advance AI Analyses Concept. Commission des Forets d'Afrique Centrale (COMIFAC) via Programme de Promotion de l'Exploitation Certifiée des Forêts (PPECF). PI: J. Palmer; Senior Personnel: **D.T. Cronin** (€203,018)
- 2019 – Present** Creating and protecting an African flagship; addressing priority actions of the newly launched Red Colobus Action Plan. National Geographic. PI: B. Long; Co-PI: **D.T. Cronin**; Senior Personnel: J.M. Linder (\$47,900)
- 2018 – Present** Leveraging enhanced SMART marine capacity and implementation globally to strengthen, monitor, and evaluate marine protected area management effectiveness in Jamaica. U.S. Fish & Wildlife Service, Caribbean Program. PI: K. Holmes; Co-PI: **D.T. Cronin** (\$111,298)
- 2018 – Present** Enhancing the Spatial Monitoring and Reporting Tool (SMART) to improve marine protected area management. National Geographic. PI: **D.T. Cronin**; Co-PI: J. Palmer (\$149,673)
- 2018 – Present** Saving Africa's most threatened primate group from extinction: The Red Colobus Conservation Action Plan (ReCAP). Margot Marsh Biodiversity Foundation. PI: **D.T. Cronin**; Co-PI: B. Long; Senior Personnel: J.M. Linder, N. Ting (\$15,000)
- 2018 – Present** Saving Africa's most threatened primate group from extinction: The Red Colobus Conservation Action Plan (ReCAP). PI: **D.T. Cronin**; Co-PI: B. Long; Senior Personnel: J.M. Linder, N. Ting (\$12,500)
- 2016** Advancing biodiversity conservation on Bioko Island with a capacity-building, international program in collaboration with the National University of Equatorial Guinea. ExxonMobil Foundation. PI: M.K. Gonder; Co-PI: G.W. Hearn; Senior Personnel: **D.T. Cronin**, H. Rader (\$300,000)
- 2015 – 2017** Reducing bushmeat supply and demand by increasing wildlife security on Bioko Island, Equatorial Guinea. U.S. Fish & Wildlife Service, Wildlife Without Borders. PI: M.K. Gonder; Senior Personnel: **D.T. Cronin**, H. Rader (\$249,608)
- 2015** Translating science into policy to develop an effective management plan for the Gran Caldera-Southern Highlands Scientific Reserve, Bioko Island, Equatorial Guinea. Marathon Oil. PI: M.K. Gonder; Senior Personnel: **D.T. Cronin**, D. Fernández, J.M. Esara Echube, A.B. Elá Ecovonno (\$42,393)
- 2015** Advancing biodiversity conservation on Bioko Island with a capacity-building, international program in collaboration with the National University of Equatorial Guinea. ExxonMobil Foundation. PI: M.K. Gonder; Co-PI: G.W. Hearn; Senior Personnel: **D.T. Cronin**, H. Rader (\$300,000)

- 2015** Continuing protection by local forest patrols for Bioko Island's endangered monkeys. International Primate Protection League. PI: M.K. Gonder; Senior Personnel: **D.T. Cronin** (\$5,000)
- 2014 – 2015** Translating science into policy to develop an effective management plan for the Gran Caldera-Southern Highlands Scientific Reserve, Bioko Island, Equatorial Guinea. U.S. Department of State, Fixed Obligation Grant. PI: M.K. Gonder; Senior Personnel: **D.T. Cronin**, D. Fernández, J.M. Esara Echube, A.B. Elá Ecovonno (\$9,000)
- 2014 – 2016** Support for BBPP bushmeat survey. Los Angeles Zoo and Botanical Gardens, Greater Los Angeles Zoo Association, Conservation Grant Program. PI: M.K. Gonder; Senior Personnel: **D.T. Cronin** (\$3,000/year)
- 2013 – 2015** Biodiversity conservation on Bioko Island, Equatorial Guinea. U.S. Fish & Wildlife Service, Wildlife Without Borders. PI: G.W. Hearn; Senior Personnel: **D.T. Cronin**, S. Honarvar, D. Bocuma Meñe (\$70,000)
- 2012 – 2013** Survey of Threatened Monkeys in the Iladyi River Valley Region, Southeastern Bioko Island, Equatorial Guinea. International Primatological Society Conservation Committee Grant. PI: **D.T. Cronin** (\$1,428)
- 2010 – 2011** The impact of hunting on the monkey species of Bioko Island, Equatorial Guinea. Primate Conservation, Inc. Research Grant. PI: **D.T. Cronin**; Co-PI: G.W. Hearn (\$2,600)
- 2010** The Impact of Hunting on Bioko: Implications for Biodiversity Conservation Honorable Mention, NSF Graduate Research Fellowship Program.

LEADERSHIP & SERVICE

PROFESSIONAL ACTIVITIES

- 2016 – Present** Red Colobus Conservation Action Plan - Interim Coordinator
2016 – 2017 African Primatological Society – Steering Committee Member
2016 IUCN Species Survival Commission – Primate Specialist Group: African Primate Red List Assessment Workshop (co-authored >20 assessments)
2013 – Present IUCN Species Survival Commission – Primate Specialist Group, Africa Section
2012 – 2017 International Primatological Society (IPS) – Conservation Committee

GRANT COMMITTEES AND *AD HOC* GRANT REVIEWING

- 2012 – 2017** International Primatological Society Conservation Grants
Ad Hoc AZA Conservation Endowment Fund; Primate Conservation, Inc.

AD HOC PEER REVIEWER

African Journal of Ecology; African Primates; American Journal of Physical Anthropology, Ambio; Biological Conservation; Cuadernos de Investigación UNED; Primate Conservation, SAGE Open; Science Advances

UNIVERSITY SERVICE

2012 – 2013	Ornithology Faculty Search Committee, Biodiversity, Earth & Environmental Science Department, Drexel University
2011 – 2013	Social Chair, Drexel University Biology Graduate Student Association
2008 – 2016	Advisor, Drexel University Study Abroad, Bioko Island Study Abroad Program
2002 – 2006	Vice-President, Arcadia University Class of 2006

FIELD EXPEDITION LEADERSHIP

2015	BBPP/National Geographic Sponsored Sampling Expedition – ‘Mapping evolutionary process on Bioko Island to improve conservation planning under climate change’, Bioko Island, Eq. Guinea (FEB – MAR)
2014	Pico Basilé Primate Survey Expedition, Bioko Island, Eq. Guinea (MAY) BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)
2013	BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)
2012	Iladyi River Valley Red Colobus Expedition, Bioko Island, Eq. Guinea (OCT) Dissertation Research Expedition, Bioko Island, Eq. Guinea (JAN – FEB) BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)
2011	Dissertation Research Expedition, Bioko Island, Eq. Guinea (JAN – JUN) BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)
2010	Dissertation Research Expedition, Bioko Island, Eq. Guinea (JAN – MAR) BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)
2009	Dissertation Research Expedition, Bioko Island, Eq. Guinea (JAN – MAR) BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)
2008	BBPP Gran Caldera Expedition, Bioko Island, Eq. Guinea (JAN)

TEACHING & MENTORING EXPERIENCE**COURSES TAUGHT**

Drexel University: Adjunct Instructor

2013 – 2015	ENVS 343: Equatorial Guinea: Field Methods in Tropical Ecology
2011 – 2015	ENVS 344: Equatorial Guinea: Field Research in Tropical Ecology

Drexel University: Graduate Student Instructor

2012 – 2013	BIO 225: Form, Function & Evolution of Vertebrates Laboratory
2011 – 2012	BIO 224: Form, Function & Evolution of Vertebrates Recitation
2010 – 2012	BIO 217: Evolution

GUEST LECTURES

Central African Biodiversity Alliance / NSF Professional Development Workshop, Congo Basin Institute, Yaoundé, Cameroon

- “Impacts of Bushmeat Hunting on Mammals in African Tropical Moist Forests” (Educational module presenting background and analysis work flow in R statistical program)
- “Field Notes, Field Journals, and Data Collection”

Drexel University

- ENVS 230: General Ecology
- ENVS 438: Biodiversity & Conservation

Arcadia University

- EC 330: Natural Resource Economics

MASTER'S ADVISEE

2017 – 2019 Sophia Raithel (Primary Adviser)
*Department of Ecology, Evolution & Environmental Biology (E3B), Columbia University,
New York, NY*

PHD COMMITTEE

2015 – 2016 Demetrio Bocuma Meñe (Committee Member)
Department of Biology, Drexel University, Philadelphia, PA

UNDERGRADUATE RESEARCH ASSISTANT

2008 – 2016 Mentored >15 undergraduate student research projects, including 7 undergraduate co-authors on peer-reviewed manuscripts

ORGANIZATIONAL AFFILIATIONS

International Primatological Society
African Primatological Society
Society for Conservation Biology

LANGUAGE SKILLS (ILR Scale)

English (5 – Native proficiency)
Spanish (3 – Professional working proficiency)
French (1 – Elementary proficiency)
West African Creole (1 – Elementary proficiency)

OUTREACH & COMMUNICATIONS

PRINT MEDIA

Cronin, D.T., Holmes, D. Buddo. 2019. Marine protected areas are getting SMART. Mongabay. ([LINK](#)).

Cronin, D.T. & K. Holmes. 2018. A Global SMART Approach to Improving Management of Marine Protected Areas. Medium. ([LINK](#)).

Cronin, D.T., J.M. Linder, N. Ting, E. Abwe. 2018. Saving Africa's most threatened primate group from extinction. National Geographic Blog. ([LINK](#)).

Cronin, D.T. 2018. Implementing SMART to conserve big cats globally. National Geographic Blog. ([LINK](#)).

Zahler, P. & **D.T. Cronin**. 2017. A SMART Approach. In: Tracks: In-flight magazine for the Convention on the Conservation of Migratory Species COP12. ([Link](#))

Cronin, D. T. 2015. Conservation in Equatorial Guinea. In: O. Scafidi. Bradt Guidebook to Equatorial Guinea. pp. 8-9. Bradt Travel Guides Ltd., UK.

Cronin, D.T. "A Successful US-EG Collaboration to Protect Bioko's Wildlife." EG Vistas August 2014: 20-25. ([LINK](#)).

RADIO INTERVIEWS

Recorded interview for "Last animals, lasting solutions: Lions, the last animals, and conservation strategies" on "It's Hot in Here" for WCBN-FM Ann Arbor (University of Michigan's School of Natural Resources and Environment), 24 January 2016. ([LINK](#))

Recorded interview for "Monkeys of Bioko Island" by Lindsay Mackenzie. Aired on "The Current with Anna Marie Tremonti" for Canadian Broadcast Corporation, 19 March 2013. ([LINK](#)).

EDUCATIONAL OUTREACH

Guest Lectures - Point Pleasant Beach High School

- Advanced Placement Biology
- General Biology

Guest Lectures - G. Harold Antrim Elementary School

- 5th Grade Students