

J. Alex Brashears
Associate Professor of Biology

Natural Sciences Department
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EDUCATION

Ph. D. Arizona State University, 2012 (Biology, advisor: D. F. DeNardo)
B. S. Arizona State University, 2006 (Cum Laude in Molecular
Biosciences/Biotechnology)

TEACHING EXPERIENCE

Assistant/Associate Professor (2016-present), LaGuardia Community College, NY

SCB 201: Fundamentals of Biology I with Lab
SCB 202: Fundamentals of Biology II with Lab
SCB 208: Vertebrate Anatomy I with Lab
SCP 105: Life in the Universe: An Introduction to Astrobiology

Assistant Professor (2014-2016) San Diego City College, San Diego, CA

BIOL 107: General Biology for non-majors
BIOL 230: Human Anatomy
BIOL 232: Human Dissection
BIOL 235: Human Physiology

Visiting Professor (2012-2013) Colgate University, Hamilton, NY

BIOL 381: Human Physiology
BIOL 381L: Human Physiology Lab
BIOL 311: Comparative Physiology
BIOL 355: Comparative Endocrinology
BIOL 211L: Ecology, Evolution, and Diversity Lab

Instructor (2010-2011) Rio Salado College Online, Tempe, AZ

BIO 156: Introductory Biology for Allied Health

Lecturer (2010-2012) Mesa Community College at Red Mountain Campus, Mesa, AZ

BIO 201: Human Anatomy

Teaching Assistant (2006-2010) Arizona State University, Tempe, AZ

BIO 201: Human Anatomy Lab
BIO 202: Human Physiology Lab
BIO 340: General Genetics
BIO 353: Cell Biology
BIO 370: Vertebrate Zoology Lab
BIO 494: Herpetology Lab

New Course Development

BIOL 311: Comparative Physiology (2013) Colgate University

BIOL 355: Endocrinology (2012) Colgate University

GRD 598: Graduate K-12 STEM Education (2010) Arizona State University

MENTORING

Undergraduate Research Grants

Rockeya McVay	CRSP ¹	2020-2021
Joshua Montanez	CRSP	2020-2021
Carlie Guevara	CRSP	2018-2019
Jessica Disla	CRSP	2018-2019
Precipy Wang	NIH Bridges	2018-2019
Afsana Abdul Rahim	CRSP	2017-2018
Sarah Seron	CRSP	2017-2018
Tina He	CRSP	2017-2018

UCSD IRACDA¹ for Postdoctoral Fellows

David Gorkin, Ph. D.	2016 Spring
Angelina Hernandez-Carretero, Ph. D	2016 Spring
Nicole Rubin, Ph. D.	2015 Fall
Dana Skara, Ph. D.	2015 Spring

SDSU SDICCCA² for Graduate Students

Jason Librande	2015 Fall
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Point Loma Nazarene University BIOL 601: Biology Internship

Brikia Cephus	2016 Spring
Tiffany Lam	2015 Fall
Adriana Monforte	2015 Spring
Elizabeth Apodaca	2015 Spring
Paul Ruiz	2014 Fall

1. CUNY Research Scholars Program
2. Institutional Research and Academic Career Development Award
3. San Diego/Imperial County Community College Association

SERVICE

To Profession

Associate Editor, Journal of Herpetology (2016-2021)

To CUNY

ASAP STEM Advisory Board Member (2018-2021)

To LaGuardia Community College

Programs:

Director LaGuardia and Wagner Archives LGBTQ+ Programs (2021-present)

Director ASAP STEM Bridges Program (2019-present)

Committees:

Chair Department Program Assessment Committee (2019-present)

Chair Academic Freedom Sub-Committee (2020-2021)
Faculty Representative to Academic Senate (2019-2021)
Academic Appeals Senate Subcommittee (2018-2019)
Ruhma Choudhury Professional Development Committee (2019-2020)
Grant Writing Committee (2016-2018)

Community:

Ask-a-Biologist at ASU (2016-present)

Club Advisor:

Behavior and Physiology Journal Club (2016-present)

To San Diego City College 2014-2016

Course Lead Instructor:

BIOL 107: General Biology for Non-Majors (2015-2016)

BIOL 235: Human Physiology (2014-2016)

BIOL 232: Human Anatomy (co-lead 2014)

Committees:

Academic Senate (2015-2016)

Student Learning Outcomes Committee (2015-present)

Grievance Hearing Committee (2015)

Master Planning, Assessment, and Resource Oversight Council (2014)

Club Advisor:

American Medical Student Association Club (2014-2016)

Health and Fitness Club (2014-2016)

Outreach:

Ask-a-Biologist at ASU (2014-present)

To Colgate University

Student Advisor (2012-2013)

PUBLICATIONS

Gertner, D., Xu, N., Porter-Morgan, H., **Brashears, A.** (2021) Developing Students' Scientific Literacy Through an e-Portfolio Project at a Community College. *Journal of Biological Education*.

Cooper, K. M., Auerbach, A. J. J., Bader, J. D., Beadles-Bohling, A. S., **Brashears, A.**, Cline, E., Eddy, S. L., Elliott, D. B., Farley, E., Fuselier, L., Heinz, H. M., Irving, M., Josek, T., Lane, K. A., Lo, S. M., Maloy, J., Nugent, M., Offerdahl, E., Palacios-Moerno, J., Ramos, J., Reid, J. W., Sparks, R. A., Waring, A. L., Wilton, M., Gormally, C., Brown, S. E. (2020) Fourteen recommendations to create a more inclusive environment for LGBTQ+ individuals in academic biology. *CBE – Life Sciences Education*.

Brashears, A., Fokidis, H. B., DeNardo, D. F. (2020) Fear-based aggression and its relationship to corticosterone responsiveness in three species of python. *General and Comparative Endocrinology*.

Keller, C., Hendrix, T., Xu, N., Porter-Morgan, H., **Brashears, A.** (2018) A foundation for STEM success: A simple and successful microscope intervention in a general biology course at an urban community college. *Journal of College Science Teaching* 48, 15-23.

Brashears, J. A., Hoffman, T. C. M., DeNardo, D. F. (2017) Modeling the costs and benefits associated with the evolution of endothermy using a robotic python. *Journal of Experimental Biology* 220, 2409-2417.

- Brashears, J., Aiello, A., Seymoure, B. M.** (2016) Cool Bands: Wing bands decrease rate of heating, but not equilibrium temperature in *Anartia Fatima*. *Journal of Thermal Biology* 56, 100-108.
- Brashears, J., DeNardo, D. F.** (2015) Facultative thermogenesis during brooding is not the norm among pythons. *Journal of Comparative Physiology A* 201, 817-825.
- Brashears, J., DeNardo, D. F.** (2013) Revisiting python thermogenesis: brooding Burmese pythons (*Python bivittatus*) cue on body, not clutch, temperature. *Journal of Herpetology* 47, 440-444.
- Brashears, J., DeNardo, D. F.** (2012) Do brooding pythons recognize their clutches? Investigating external cues for offspring recognition in the Children's python, *Antaresia childreni*. *Ethology* 118, 793-798.
- Stahlschmidt, Z. R., **Brashears, J., DeNardo, D. F.** (2011) The role of temperature and humidity in python nest-site selection. *Animal Behavior* 81, 1077-1081.
- Stahlschmidt, Z. R., **Brashears, J., DeNardo, D. F.** (2011) The use of ultrasonography to assess reproductive investment and output in pythons. *Biological Journal of the Linnaean Society* 103, 772-778.

PRESENTATIONS

- Brashears, J. A.** (2019) Using ePortfolio to Scaffold STEM Identity. AACU Annual Conference at Atlanta, GA. Oral Presentation.
- Brashears, J. A.** (2018) From Calories to Color – How Energy Drives Evolution. SUNY Empire State Science Colloquium at New York City, NY.
- Brashears, J. A., Xu, N., and Porter-Morgan, H.** (2017) Preparing to Launch: Incorporating High Impact Technology in a Gateway Science Class. Coordinated Undergraduate Education Annual Meeting at New York City, NY. Oral Presentation.
- Brashears, J. A.** (2017) GlobalMindEd Annual Meeting at Denver, CO. Panel speaker.
- Brashears, J., Fokidis, H. B., and DeNardo, D. F.** (2013) Defense behavior and the stress response in three species of python. Society for Integrative and Comparative Biology Annual Meeting at San Francisco, CA. Poster presentation.
- Brashears, J. and DeNardo, D. F.** (2011) Touch or go: Proximal cues for clutch brooding in Children's python (*Antaresia childreni*). Society for Integrative and Comparative Biology Annual Meeting at Salt Lake City, UT. Poster presentation.
- Stahlschmidt, Z. R., **Brashears, J., and DeNardo, D. F.** (2011) Warm and humid: Nest-site selection in an emerging parental care model. Society for Integrative and Comparative Biology Annual Meeting at Salt Lake City, UT. Poster presentation.
- Brashears, J.** (2010) Hormonal correlates accompanying reproductive behavior in three species of python. Society for Integrative and Comparative Biology Annual Meeting at Seattle, WA. Oral presentation.
- Brashears, J. and DeNardo, D. F.** (2009) Correlations between muscle twitch, metabolic rate, and temperature in brooding Burmese pythons (*Python molurus*). Society for Integrative and Comparative Biology Annual Meeting at Boston, MA. Poster presentation.
- Brashears, J. and DeNardo, D. F.** (2009) Correlations between muscle twitch, metabolic rate, and temperature in brooding Burmese pythons (*Python molurus*). Graduates in Engineering, Life, and Social Sciences at Tempe, AZ. Poster presentation.

OTHER ACTIVITIES

Service

Board Member Sam and Devorah Foundation for Transgender Youth (2021-present)

Writing and Editing

Associate Editor, *Journal of Herpetology* (2016-2021)

Script Advising, *Sex and Gender Variation by the Campion Fund* (2018)

<http://campionfund.org/home/sexandgender/>

Writer, *Evolutionary Curiosities* (2016) Pomegranate Publications, Portland, OR

Editor, *Physiology Lab Manual* (2014-2016) San Diego City College

Public Presentations

Lecture, “Careers in Biology: Myths and Realities” (2018) presented to the Accelerated Study in Associate Programs.

Lecture, “From Calories to Color – How Energy Drives Evolution” (2018) presented to the Empire State College Science Colloquium.

Lecture, “Reptile Sex: When Life Got Interesting” (2011) presented as a public lecture to the Arizona Audubon Society

Press Feature, “Researchers take deeper look at parental care among snakes.” (2011) by Nicodemo, A., ASU News

GRANTS

STEM Bridges Grant to Brashears, J. A. (2020) *CUNY ASAP* \$30,000

Research Grant to Brashears, J. A., and Gertner, D. (2018) *PSC CUNY Research Foundation* \$3,428

Mini-Grant to Radhakrishnan, P., Hendrix, T., and Brashears, J. A. (2017) *LaGuardia Center for Teaching and Learning* \$210,504.50

ASAP STEM grant to Brashears, J. A., Xu, N., and Porter-Morgan, H. (2016) *ASAP* \$37,240

Colgate University Research Council (2012) *Discretionary Research Grant* \$1500

Graduate and Professional Student Association (2011) *Teaching Excellence Award* \$800

School of Life Sciences Graduate Program (2012) *Graduate Completion Award* \$10,524

Graduate and Professional Student Association (2011) *Student Service Award* \$700.

Peabody Family Memorial (2009) *Graduate Fellowship* \$2000

Chicago Herpetology Society Research Grant (2006) *Research Grant* \$500

Graduate and Professional Student Association at ASU (2005) *Research Grant* \$2000

PROFESSIONAL MEMBERSHIPS

Society for the Study of Amphibians and Reptiles (SSAR)

American Association for the Advancement of Science (AAAS)