

J. Allie 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

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|-------------------------------------|-------------|
| 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

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

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|-------------------|-------------|
| Brikiya 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 Community

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

Member, Queens Pride Advisory Board (2021-present)

Member, SunnyPride Advisory Board (2023-present)

To CUNY

Director, CUNY LGBTQIA+ Consortium (2021-present)

ASAP STEM Advisory Board Member (2018-present)

To LaGuardia Community College

Programs:

- Director, LaGuardia and Wagner Archives LGBTQ+ Programs (2021-present)
- Director, ASAP STEM Bridges Program (2019-2023)

Committees:

- Chair, Department Program Assessment Committee (2019-present)
- Chair, Academic Freedom Sub-Committee (2020-2021)
- Faculty Representative, Academic Senate (2019-2021)
- Member, Academic Appeals Senate Subcommittee (2018-2019)
- Member, Ruhma Choudhury Professional Development Committee (2019-2020)
- Chair, Grant Writing Committee (2016-2018)

Community:

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

Student Life:

- Adviser, Behavior and Physiology Journal Club (2016-2021)

To San Diego City College (2014-2016)

Course Coordinator:

- BIOL 107: General Biology for Non-Majors (2015-2016)
- BIOL 235: Human Physiology (2014-2016)
- BIOL 232: Human Anatomy (co-led 2014)

Committees:

- Member, Academic Senate (2015-2016)
- Member, Student Learning Outcomes Committee (2015-present)
- Member, Grievance Hearing Committee (2015)
- Member, Master Planning, Assessment, and Resource Oversight Council (2014)

Student Life:

- Adviser, American Medical Student Association Club (2014-2016)
- Adviser, Health and Fitness Club (2014-2016)

Outreach:

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

To Colgate University (2012-2013)

Student Advisor (2012-2013)

PUBLICATIONS

- Moeller, K. T., **Brashears, J. A.**, Davies, S., Demare, G., Smith, G. D., Brusck IV, G. A., Simpson, R. K., and DeNardo, D. F. (2023) Corticosterone and immune responses to dehydration in squamate reptiles. *Journal of Experimental Biology*.
- Gertner, D., Xu, N., Porter-Morgan, H., **Brashears, J.** (2023) Increased Pre-Lecture Reading and Greater Attendance at a Community College Gateway Science Course. *Journal of College Science Teaching*.
- Onorato, T. M., Oulhen, N., Reyes, G., Foster, S., Pieplow, C., Rollins, J. E., **Brashears, J. A.**, Davis, C., Alberts, I., Veras, I. D., and Wessel, G. M. (2023) A pandemic-resilient CURE enhances a paradigm shift of community college students from knowledge consumers to authentic knowledge producers. *Journal of College Science Teaching*.
- 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

Writing and Editing

Script Advisor, 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/FUNDRAISING

Project SEMBRAR to Radhakrishnan, P. (2023) *USDA* \$4,500,000

LGBTQIA+ Public History Project (2024) *NY City Council* \$1,150,000

LGBTQIA+ Public History Project (2023) *NY City Council* \$1,150,000

LGBTQIA+ Public History Project (2022) *NY City Council* \$700,000

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

American Association for the Advancement of Science (AAAS)

American Society of Naturalists (ASN)