

Sofia Paz Sedano

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Employment

- 2023 – Present** Postdoctoral fellowship. Gerstner Scholar, American Museum of Natural History, New York City (USA).
- 2020 – 2023** Assistant professor in Zoology. Autonomous University of Madrid (Spain).
- 2019** Research assistant at Stazione Zoologica Anton Dohrn, Napoli (Italy).

Education

- 2019 – 2023** Ph.D student in Biology, Evolutive Biology and Biodiversity. Autonomous University of Madrid (Spain). Cum Laude, proposed for extraordinary honor prize.
 Dissertation: “Integrative taxonomy review of the family Goniadorididae (Mollusca, Gastropoda, Nudibranchia)”. Supervisors: Dr. Marta Pola and Dr. Terrence M. Gosliner.
- 2016 – 2018** M.Sc. in Marine Biology: Biodiversity and Conservation. University of La Laguna, Tenerife (Spain). Extraordinary honor Prize.
 Thesis: “Revision of the genus *Okenia* Menke, 1830 (Nudibranchia: Goniadorididae) in the Mediterranean Sea”. Supervisors: Dr. Marta Pola and Dr. Mariano Hernández Ferrer.
- 2011 – 2016** B.Sc. in Biology. Autonomous University of Madrid (Spain).
 Thesis: “Description of a new species of nudibranch gastropod mollusk of the genus *Okenia* Menke, 1830 from the Azores archipelago (Portugal), including morphological and molecular data”. Supervisor: Dr. Marta Pola.

Further experience and trainings

- 2023** California Academy of Sciences, San Francisco (USA). Systematic studies of nudibranchs. Supervisor: Dr. Terrence M. Gosliner.
- 2022** University of Barcelona, Barcelona (Spain). Bioinformatic analyses of Ultraconserved Elements of Nudibranchs. Supervisor: Dr. Juan Moles.
- 2021** University of Cádiz, Cádiz (Spain). Molecular Analyses: extraction, amplification and sequence of DNA. Supervisor: Dr. Juan Lucas Cervera.
- 2020** Natural History Museum of London, London (UK). Transcriptome sequencing. Supervisor: Dr. Ana Riesgo Gil.
- 2020** University of Santiago de Compostela. Marine Biology Research Centre of A Graña, Ferrol (Spain). Computed micro-tomography scanning of nudibranchs. Supervisor: Dr. Guillermo Díaz Agras.

- 2018** Erasmus placement at the Stazione Zoologica Anton Dohrn, Naples (Italy). Studies of mollusks biota of Marine Canyon Dohrn. Supervisor: Dr. Fabio Crocetta.
- 2018** Autonomous University of Madrid, Madrid (Spain). Systematic studies of nudibranchs, morphological and molecular analyses. Supervisor: Dr. Marta Pola.
- 2017** University of Cádiz, Cádiz (Spain). Molecular analysis: extraction, amplification and sequence of DNA. Supervisor: Dr. Juan Lucas Cervera.
- 2017** University of Costa Rica, San José (Costa Rica). Sampling. Assistant curator of Opisthobranch collections. Morphological and molecular studies of nudibranchs. Supervisor: Dr. Yolanda Camacho.
- 2017** University of La Laguna. La Restinga Laboratory, El Hierro. Research group on Biodiversity, Marine Ecology and Conservation (BIOECOMAC), Canary Islands (Spain). Studies of algal coverage, fish and limpet management in the fish market, size and abundance studies of shellfish resources, photo-identification and biopsy of *Ziphius*, and environment education. Supervisor: Dr. Alberto Brito.
- 2015** University of Alicante. Marine Research Center of Santa Pola, Alicante (Spain) Identification of benthic fauna, exotic and bioindicator species, population dynamics of jellyfish, studies on potential use of *Posidonia oceanica* for landfill recovery and environment education. Supervisor: Dr. Alfonso A. Ramos Esplá.

Grants and honors

- 2023** Gerstner Scholar Postdoctoral fellowship by Richard Gilder Graduate School, AMNH (18,450 \$).
- 2022** Graduate Student Research Award. Society of Systematics Biologist (2,560.20 \$).
- 2020** Mini-Arts. Society of Systematics Biologist (4,000 \$).
- 2020** Systematics Research Fund. Linnean Society and Systematics Association (967 \$).
- 2019** Award to attend to the course “Analyses of NGS data”. Genomic and Next-generation Sequencing Service and Molecular Biology Center Severo Ochoa, Madrid (Spain) (650 \$).
- 2019** Travel Grant. Unitas Malacologica (1,600 \$).
- 2019** Short Term Scientific Mission CA15219, DNAqua-Net (2,700 \$).
- 2018** Erasmus placement, University of La Laguna, Tenerife (Spain).
- 2018** Extraordinary honor prize of M.Sc. in Marine Biology: Biodiversity and Conservation, 2017–2018. University of La Laguna, Tenerife (Spain).

2017 Travel award for Master students, University of La Laguna, Tenerife (Spain).

Projects

- 2023 – 2025 “Mechanisms of autotomy and regeneration in Nudibranchia and its evolution within lineages”. Supported by RGGs, American Museum of Natural History.
- 2022 – 2023 “Systematic revision of Goniodorididae species (Mollusca; Nudibranchia) combining morphological and molecular data”. Supported by Graduate Student Research Award.
- 2020 – 2022 “Shedding light on the family Goniodorididae (Mollusca; Nudibranchia) using micro-computed tomography”. Supported by Systematics Research Fund
- 2020 – 2021 “Study of the biodiversity of nudibranchs in the estuary of the Mooloolah River, Queensland, Australia. Species inventory and morphological and molecular studies of the Goniodorididae family”. Supported by Department of Biology. Autonomous University of Madrid (BIOUA04- 2020). Collaborator.

Publications

1. **Paz-Sedano, S.**, Moles, J., Smirnov, D., Gosliner, T. M., & Pola, M. (2024). A combined phylogenetic strategy illuminates the evolution of Goniodorididae nudibranchs (Mollusca, Gastropoda, Heterobranchia). *Molecular Phylogenetics and Evolution*, 107990.
2. **Paz-Sedano, S.**, Ekimova, I., Smirnov, D., Gosliner, T.M., & Pola, M. (2023). Shedding light on a species complex within the genus *Goniodoridella* Pruvot-Fol, 1933 (Nudibranchia: Goniodorididae), with the description of three new species. *Journal of Molluscan Studies*. 89(4), eyad020.
3. Pola, M., Miguel-Gonzalez, M., **Paz-Sedano, S.** (2023). New contributions to the subfamily Polycerinae Alder & Hancock, 1845 (Nudibranchia, Polyceridae): description of three new species and one new genus. *Journal of the Marine Biological Association of the United Kingdom*. 103, e76, 1–18.
4. **Paz-Sedano, S.**, Smirnov, D., Gosliner, T. M., & Pola, M. (2023). When a genus must become two. The reinstatement of *Pelagella* Gray, 1850 with description of six new species. *Journal of Molluscan Studies*. 89(2), eyad008.
5. **Paz-Sedano, S.**, Martín Álvarez, J. F., Gosliner, T. M., & Pola, M. (2022). Reassessing North Eastern Atlantic-Mediterranean species of *Trapania* (Mollusca, Nudibranchia). *Zoologica Scripta*. 10.1111/zsc.12536.
6. **Paz-Sedano, S.**, Smirnov, D., Candás, M., Gosliner, T. M., & Pola, M. (2022). Rediscovering the overlooked genus *Murphydoris* (Nudibranchia: Goniodorididae): the first phylogeny and addition of four new species. *Zoological Journal of the Linnean Society*. 196 (1): 250-269.
7. **Paz-Sedano, S.**, Díaz-Agras, G., Gosliner, T.M., & Pola, M. (2022). Revealing morphological characteristics of Goniodorididae genera (Mollusca: Nudibranchia). *Organisms Diversity & Evolution*, 22(1), 93-116.
8. **Paz-Sedano, S.**, Wilson, N.G., Carmona, L., Gosliner, T.M., & Pola, M. (2021). An ocean yet to be discovered: increasing systematic knowledge of Indo-Pacific *Okenia* Menke, 1830 (Nudibranchia: Goniodorididae). *Invertebrate Systematics*. 35(7), 797-825.

9. **Paz-Sedano, S.**, Candás, M., Gosliner, T. M., & Pola, M. (2021). Undressing *Lophodoris danielsseni* (Friele & Hansen, 1878) (Nudibranchia: Goniodorididae). *Organisms Diversity & Evolution*, 1-11.
10. Crocetta, F., Caputi, L., **Paz-Sedano, S.**, Tanduo, V., Vazzana, A., & Oliverio, M. (2020). High genetic connectivity in a gastropod with long-lasting planktonic larvae. *Journal of Molluscan Studies*. 86(1): 42-55.
11. **Paz-Sedano, S.**, Tanduo, V., Yonow, N., Yokes, M.B., Klerou, D. & Crocetta, F. (2019). *Baeolidia moebii* Bergh, 1888 (Mollusca: Gastropoda: Nudibranchia) is spreading in the eastern Mediterranean Sea. *Regional Studies in Marine Science*. 32:100830.
12. Pola, M., **Paz-Sedano, S.**, Macali, A., Minchin, D., Marchini, A., Vitale, F., Licchelli, C. & Crocetta, F. (2019). What is really out there? Review of the genus *Okenia* Menke, 1830 (Nudibranchia: Goniodorididae) in the Mediterranean Sea with description of two new species. *PLoS ONE*. 14(5):e0215037.
13. **Paz-Sedano, S.**, Ortigosa, D. & Pola, M. (2017). A new *Okenia* Menke, 1830 (Mollusca: Nudibranchia: Goniodorididae) from the Azores Islands (Portugal). *Spixiana*, 40 (1): 13-22.

Further contributions

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| 2022 | Contribution to the website of Systematic Association: “The colourful and diverse world of nudibranchs”. Available at: https://systass.org/texts/nudibranchs/ |
| 2021 | Contribution to the website madri+d, knowledge foundation for the promotion of Science, Technology, Innovation of the Community of Madrid (Spain): “Desnudando a un molusco desnudo... sin tocarlo”. Available at: http://www.madrimasd.org/notiweb/noticias/desnudando-un-molusco-desnudo-sin-tocarlo |
| 2021 | Contribution to the University website of Autonomous University of Madrid, UAM Gazette. “Desnudando a un molusco desnudo... sin tocarlo”. Available at https://www.uam.es/uam/cultura-cientifica/desnudando-molusco-sin-tocarlo |

Conferences

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| 2023 | Miguel-González, M., Paz-Sedano, S. , Tiribiçá, Y., & Pola, M. La oveja blanca de la familia. Una nueva especie de <i>Ceratosoma</i> Gray, 1850 con una morfología enigmática. Poster. Foro Malacológico, Spanish Society of Malacologist. Cádiz (Spain). |
| 2023 | Miguel-González, M., Paz-Sedano, S. , & Pola, M. Nuevas contribuciones al conocimiento de la subfamilia Polycerinae Alder y Hancock, 1845 (Nudibranchia, Polyceridae): Descripción de dos nuevas especies y un género nuevo. Oral communication. XXV Biennial of the Royal Spanish Society of Natural History. Málaga (Spain). |
| 2023 | Miguel-González, M., Bonomo, L., Paz-Sedano, S. , Tiribiçá, Y., & Pola, M. Expandiendo el Puzzle: Descripción de una especie nueva del género <i>Goniobranchus</i> Pease, 1866 (Nudibranchia, Chromodorididae). Poster. XXV Biennial of the Royal Spanish Society of Natural History. Málaga (Spain). |

- 2023** Paz-Sedano, S., Gosliner, T.M. & Pola, M. El eterno desafío... conociendo la biodiversidad de la familia Goniodorididae (Mollusca, Nudibranchia) mediante el estudio de seis especies nuevas. Poster. XXV Biennial of the Royal Spanish Society of Natural History. Málaga (Spain).
- 2021** Paz-Sedano, S., Gosliner, T.M. & Pola, M. Nothing is what it seems. Reassessing Atlantic-Mediterranean species of *Trapania* Pruvot-Fol, 1931 (Mollusca; Nudibranchia). Poster. Congresso Português de Malacologia. Oporto (Portugal).
- 2021** Paz-Sedano, S., Gosliner, T.M. & Pola, M. Who is not *Goniodoridella savignyi* Pruvot-Fol, 1933? The challenge of Indo-Pacific *Goniodoridella* species complex (Nudibranchia, Goniodorididae). Poster. 9th European Congress of Malacological Societies. Prague (Czech Republic).
- 2020** Paz-Sedano, S. & Pola, M. Knowing the biodiversity of nudibranchs (Mollusca: Gastropoda): Taxonomy, phylogeny and biogeography of species. Poster. III First steps conference of the biology department. Autonomous University of Madrid. Madrid (Spain).
- 2019** Paz-Sedano, S., Gosliner, T.M. & Pola, M. How well we know marine biodiversity? The family Goniodorididae H. Adams & A. Adams, 1854 (Mollusca: Nudibranchia) as an example of our unknowledge. Oral communication. Foro malacológico, Spanish society of Malacologist. Vigo (España).
- 2019** Paz-Sedano, S., Gosliner, T.M. & Pola, M. Missing gaps in the family Goniodorididae H. Adams & A. Adams, 1854 (Mollusca: Nudibranchia). Past, present and future. Oral communication. 20th International Congress of Unitas Malacologica, The World Congress of Malacology (WCM). Pacific Grove (California).
- 2017** Pola, M., Paz-Sedano, S., Macali, A., Minchin, D., Marchini, A., Vitale, F & Lichelli, C. The nightmare of *Okenia* in the Mediterranean Sea. What are we facing? Poster. 8th European Congress of Malacological Societies. Cracov (Poland).
- 2016** Paz-Sedano, S., Ortigosa, S. & Pola, M. A new species of *Okenia* Menke, 1830 (Nudibranchia: Goniodorididae) from the Azores Islands (Portugal): Morphological description and molecular data. Poster. 19th International Congress of Unitas Malacologica, The world congress of Malacology (WCM). Penang, Malaysia.

Teaching

- 2023 – 2024** Subject: Applied Zoology. Third year of B.Sc. in Biology: 38h. Autonomous University of Madrid (Spain).
- Subject: Zoology. First year of B.Sc. in Biology: 22h. Autonomous University of Madrid (Spain).
- 2022 – 2023** Subject: Applied Zoology. Third year of B.Sc. in Biology: 20h. Autonomous University of Madrid (Spain).
- Subject: Marine Biology. M.Sc. of Biodiversity: 40h. Autonomous University of Madrid (Spain).

- 2021 – 2022** Subject: Zoology. First year of B.Sc. in Biology and B.S. in Environmental Sciences: 60h. Autonomous University of Madrid (Spain).
- 2020 – 2021** Subject: Zoology. First year of B.Sc. in Biology and B.S. in Environmental Sciences: 60h. Autonomous University of Madrid (Spain).
- 2019 – 2020** Subject: Zoology. First year of B.Sc. in Biology and B.S. in Environmental Sciences: 60h. Autonomous University of Madrid (Spain).

Thesis co-advisor

- 2023 – 2024** Patricia Guisado. B.Sc. thesis, Biology, Autonomous University of Madrid (Spain). “Description of a new species of nudibranch from East Timor”.
- 2023 – 2024** Laura Jimenez Fenoy. B.Sc. thesis, Environmental Sciences, Autonomous University of Madrid (Spain). “Impact of boat anchoring on the meadows of *Posidonia oceanica* (L.) Delile, 1813 in the Balearic Islands”
- 2023 – 2024** Ekai Sempere Casillas. B.Sc. thesis, Biology, Autonomous University of Madrid (Spain). “Description of a new species of nudibranch gastropod mollusk from the Maldives Islands”.
- 2021 – 2022** Javier Gordillo de Juan. B.Sc. thesis, Biology, Autonomous University of Madrid (Spain). “Study of pseudocryptic species: the case of *Paraflabellina ischitana* (Hirano & T.E. Thompson, 1990)”.
- 2020 – 2021** Nerea Huertos Soto. B.Sc. thesis, Biology, Autonomous University of Madrid (Spain). “Morphological description and phylogenetic analysis of a new species of nudibranch belonging to the family Goniadorididae (Mollusca, Heterobranchia)”.
- 2020 – 2021** Sara Puche Gómez. B.Sc. thesis, Biology, Autonomous University of Madrid (Spain). “Nudibranchs of Mooloolah River (Queensland, Australia): an extraordinary place”. University Autonomous of Madrid (Spain)”.

Referee experience

- 2023** Proceedings B Editorial (1).
- 2022** Journal of Morphology (1).
- 2019** Biodiversity data journal (1).
- 2019** BioInvasion Records (1).

Other courses

- 2021** Strategies to facilitate self-directed learning in the classroom.
- 2021** Motivation and university learning. Autonomous University of Madrid.
- 2021** Digital competence of university professor. Digital tools for distance learning in a TEAMS environment. Autonomous University of Madrid.

- 2021** Learning assessment. Autonomous University of Madrid.
- 2021** Editing of audiovisual educational resources: image processing, screen capture and video editing.
- 2020** PH525.1x: Statistics and R. HarvardX. edX online course.
- 2020** PH526x: Using Python for Research. HarvardX. edX online course.
- 2020** DAT208x: Introduction to Python for Data Science. Microsoft. edX online course.
- 2019** Data analysis for NGS. Genomics and high-throughput sequencing service (GENGS) and Severo Ochoa molecular biology center (CBMSO) CSIC-UAM.
- 2019** Introduction to RNA-seq data analysis. Allgenetics.
- 2019** Law applicated to research and teaching. Autonomous University of Madrid.
- 2018** Course of first aids in nature. Cruz Roja. Madrid (Spain).
- 2018** Theoretical-practical course of zoology nomenclature. National Museum of Natural Science. Madrid.
- 2017** Course of Traceability of aquatic organisms and aquiculture. University of La Laguna, Tenerife.
- 2016** Training of Cetavist Volunteers (Network of Notices of Cetaceans and Seabirds of the Canary Islands). University of La Laguna, Tenerife.
- 2016** PADI Advanced Open Water Diver.

Volunteer

- 2019** Presentation “The world of bees”. “Summer 2019” cultural program of the San Esteban de Gormaz City Council. Social Center of the Villa de Ines Cultural Association, Soria (Spain).
- 2014 –2015** Volunteer as caregiver assistant at the Rainfer Primate Rescue and Rehabilitation. Animal care, maintenance, and enrichment of facilities. Madrid (Spain).
- 2012** Volunteer at Project Aware Foundation, Divers Conserving Underwater Environments, beach and underwater clean up in the Marine Reserve of Tabarca Island, Alicante (Spain).