

EDUARDO ANTONIO MORALES LUIZAGA, Lic. Biol., M. Sc., Ph.D.

- Position**
- Research Scientist, Phycology Section, Patrick Center for Environmental Research, The Academy of Natural Sciences of Philadelphia.
 - Adjunct Professor, Universidad Católica Boliviana, Cochabamba, Bolivia.
 - Curator, Cryptogamic Herbarium, Universidad Católica Boliviana, Cochabamba, Bolivia

Education

Degrees

- Ph.D. 2000 (Ecology) University of Connecticut, USA
M.Sc. 1997 (Ecology) University of Connecticut, USA
B.Sc. 1993 Universidad Mayor de San Simón, Bolivia (with Honors Thesis)

International Graduate Courses and Workshops

- 2000 Third through Twelfth NAWQA Workshop on Harmonization of Algal Taxonomy (co-organizer). Academy of Natural Sciences of Philadelphia, USA.
1997 Ecology and Systematics of Diatoms. Iowa, USA. Taught by Dr. Eugene F. Stoermer (USA).
1992 Taxonomía y Asociación del Zooplankton de Lagunas de Altura [**Taxonomy and Associations of Zooplankton from High-Altitude Lakes**]. Cochabamba, Bolivia. Taught by Dr. R. Paggi (Argentina).
1992 Fitoplancton de Agua Dulce, Biodiversidad y **Ecología** [**Freshwater Phytoplankton, Biodiversity and Ecology**]. Buenos Aires, Argentina. Taught by Dr. G. Tell (Argentina).
1991 Taxionomia de Algas de Águas Continentais [**Taxonomy of Algae from Continental Waters**]. Belém, Pará, Brasil. Taught by Dr. C. Bicudo (Brazil).

Experience

- 2007 (to present) Curator, Cryptogamic Herbarium, Universidad Católica Boliviana, Cochabamba, Bolivia
2006 (to present) Adjunct Professor, Universidad Católica Boliviana, Cochabamba, Bolivia.
2001-2006 Adjunct Professor, Philadelphia University. Teaching General Biology.
2001 (to present) Research Scientist at the Diatom Laboratory, Phycology Section, Patrick Center for Environmental Research, The Academy of Natural Sciences of Philadelphia.
2000 Staff Scientist at the Diatom Laboratory, Phycology Section, Patrick Center for Environmental Research, The Academy of Natural Sciences of Philadelphia.
2000 Teaching assistant (BIO108). Department of Ecology and Evolutionary Biology, University of Connecticut, USA.
1998-1999 Research Assistant at the Electron Microscopy Laboratory, Department of Physiology and Neurobiology, University of Connecticut, USA. Proficiency in

- the use of SEM and TEM.
- 1999 Teaching Assistant (BIO102, BIO107). Department of Ecology and Evolutionary Biology, University of Connecticut, USA.
- 1998 Teaching assistant BIO238 (Limnological Methods) and BIO108. Department of Ecology and Evolutionary Biology, University of Connecticut, USA.
- 1997 Consultant, Project Oceanology. University of Connecticut, Avery Point Campus. Limnological studies in the Thames River, CT, USA.
- 1995 Teaching Assistant (BIO108, BIO110). Department of Ecology and Evolutionary Biology, University of Connecticut, USA.
- 1993 Teaching Assistant: Botany (BIO 121), Department of Biology, Universidad Mayor de San Simón, Bolivia.
- 1989 Research Assistant Program of Aquatic Resources, Department of Biology, Universidad Mayor de San Simón, Bolivia.

Professional Societies

- Northeast Algal Society (NEAS), New England, USA.
- Sociedad Boliviana de Limnología, Bolivia [**Bolivian Limnological Society**]
- Sociedad Científica de Biología (co-founder), Universidad Mayor de San Simón, Cochabamba, Bolivia. [**Bolivian Scientific Society**]
- Sociedad de Ficología de América Latina y El Caribe [**Latin American and Caribbean Phycological Society**]
- Sociedad Peruana de Ficología [**Peruvian Phycological Society**]

Recent Honors, Awards, and Distinctions

- 2001 SEDG (Staff Education and Development Grant) Academy of Natural Sciences of Philadelphia, USA.
- 1999 Biology Graduate Teaching Award, University of Connecticut, USA.
- 1999 Francis Rice Trainor Scholarship Award, University of Connecticut, USA.
- 1999 NEAS (Northeast Algal Society) Student Travel Award to assist to the 1999 Northeast Algal Symposium, Plymouth, MA, USA.
- 1997 Ronald Bamford Award, University of Connecticut, USA.
- 1997 University of Connecticut Research Foundation Short Course Award.
- 1997 Okoboji Protective Association (OPA) Award., Lakeside Laboratory, Iowa, USA
- 1997 University of Connecticut Research Foundation Travel Award.
- 1996-1999 University of Connecticut Doctorate Teaching Fellowship.
- 1996-1999 All Summers: Summer Fellowship Awards, University of Connecticut, USA.
- 1995 Francis Rice Trainor Scholarship Award, University of Connecticut, USA.
- 1994-1996 Fulbright Scholarship (Administered by Latin American Scholarship Program for American Universities). Full support for the completion of Masters degree.

Some Recent Publications

Articles

- Morales, E.A.**, Manoylov, K.M. & Bahls, L.L. 2010. *Fragilariforma horstii* sp.nov. (Bacillariophyceae) a new araphid species from the northern United States of America. *Nova Hedwigia* 141: 141-154.
- Solak, C. N., Ector, L., Wojtal, A.Z., Acs, E. & **Morales, E.A.** 2010. A review of investigations on diatoms (Bacillariophyta) in Turkish inland waters. *Nova Hedwigia* 141: 461-472.
- Morales, E.A.**, Novais, M.H., Chávez, G. Hoffmann, L. & Ector, L. 2012. Diatoms (Bacillariophyceae) from the Bolivian Altiplano: three new araphid species from the Desaguadero River draining Lake Titicaca. *Fottea* 12: 41-58. **Morales, E. A.** 2003. On the taxonomic position of *Belonastrum* and *Synedrella* proposed by Round and Maidana (2001). *Cryptogamie Algologie* 24: 277-288.
- Cejudo-Figueiras, C., **Morales, E.A.**, Wetzel, C.E., Blanco, S. Hoffmann, L & Ector, L. 2011. Analysis of the type of *Fragilaria construens* var. *subsalina* (Bacillariophyceae) and description of two morphologically related taxa from Europe and the United States. *Phycologia* 50: 67-77.
- Morales, E.A.**, Ector, L., Fernández, E., Novais, M.H., Hlubikova, D., Hamilton, P.B., Blanco, S., Vis, M.L. & Kociolek, J.P. 2011. The genus *Achnantheidium* Kützing (Achnanthes, Bacillariophyceae) in Bolivian streams: a report of taxa found in recent investigations. *Algological Studies* 136/137: 89-130.
- Taylor, J.C., **Morales, E.A.** & Ector, L. 2011. *Achnantheidium standeri* Cholnoky and *Achnantheidium taiaensis* (J.R. Carter et Denny) two new combinations of morphologically similar *Achnantheidium* species from Africa. *Algological Studies* 136/137: 151-166.
- Wojtal, A.Z., Ector, L. Van de Vijver, B., **Morales, E.A.**, Blanco, S., Piatek, J. & Smieja, A. 2011. Morphology and distribution of the *Achnantheidium minutissimum* complex (Bacillariophyceae) in southern Poland. *Algological Studies* 136/137: 211-238.
- Acs, E., Ector, L., Kiss, K.T., Cserháti, C., **Morales, E.A.** & Levkov, Z. 2011. Morphological observations on *Amphora micrometra* Giffen from the Bolivian Altiplano, South America and its transfer to the genus *Halamphora*. *Diatom Research* 26: 199-212.
- Morales, E.A.**, Edlund, M.B & Spaulding, S.A. 2010. Description and ultrastructure of araphid diatom species (Bacillariophyceae) morphologically similar to *Pseudostaurosira elliptica* (Schumann) Edlund *et al.* *Phycological Research* 58: 97-107.
- Williams, D.M. & **Morales, E.A.** 2010. *Pseudostaurosira medliniae* a new name for *Pseudostaurosira elliptica* (Gasse) Jung et Medlin. *Diatom Research* 25: 225-226.
- Morales, E.A.**, Wetzel, C.E. & Ector, L. 2010. Two short-striated species of *Staurosirella* (Bacillariophyceae) from Indonesia and the United States. *Polish Botanical Journal* 55: 107-117.
- Morales, E.A.**, Fernández, E. & Chávez, V.S. 2010. Diatomeas (Bacillariophyta): ¿Por qué debemos incorporarlas en estudios de la biodiversidad boliviana? [**Diatoms (Bacillariophyta): Why should we incorporate them in studies of Bolivian biodiversity?**]. In: Beck, S. G. et al. (Eds.). *Biodiversidad y Ecología en Bolivia. Simposio XXX Aniversario Instituto de Ecología Universidad Mayor de San Andrés, La Paz. Bolivia.* p. 31-54.
- Morales, E.A.**, Manoylov, K.M. & Bahls, L.L. 2010. Three new araphid diatoms

- (Bacillariophyta) from rivers in North America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 160: 29-46.
- Morales, E.A.** & Manoylov, K.M. 2009. *Mayamaea cahabaensis* sp. nov. (Bacillariophyceae), a new freshwater diatom from streams in the United States. *Proceedings of the Academy of Natural Sciences of Philadelphia* 158: 49-59.
- Morales, E.A.**, Fernández, E. & Kociolek, P.J. 2009. Epilithic diatoms (Bacillariophyta) from cloud forest and alpine streams in Bolivia, South America 3: diatoms from Sehuencas, Carrasco National Park, Department of Cochabamba. *Acta Botanica Croatica* 68(2): 263-283.
- Siver, P.A., Hamilton, P.B. & **Morales, E.A.** 2008. *Brevilinea pocosinensis* Siver, Hamilton & Morales gen. et sp. nov., a new diatom (Bacillariophyceae) genus from North Carolina. *Phycological Research* 56: 141-148.
- Morales, E.A.**, Fernández, E., Fernandez, C.E., Lizarro, D. & Alcoreza, P. 2008. Algal studies in Bolivia: a compilation and preliminary analysis of existing phycological literature. *Gayana Botánica* 65(1): 93-109.
- Morales, E. A.** & Trainor, F. R. 2007. The role of phenotypic plasticity in the interpretation of ecological data. In: Feyen, J., Aguirre, L. F. & Moraes, R. M. (Eds.). *Congreso internacional sobre desarrollo y medio ambiente y recursos naturales: sostenibilidad a múltiples niveles y escalas/Internacional congress on development, environment and natural resources: Multi-level and multi-scale sustainability*. Vol. II. pp. 1150-1157. Universidad Mayor de San Simón. Talleres Gráficos Kipus. Cochabamba, Bolivia.
- Morales, E. A.** & Vis, M. L. 2007. Epilithic diatoms (Bacillariophyceae) from cloud forest and alpine streams in Bolivia, South America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 126: 123-155.
- Siver, P. A., Hamilton, P. B. & **Morales, E. A.** 2007. Notes on the genus *Nupela* (Bacillariophyceae) including the description of a new species, *Nupela scissura* sp. nov. and an expanded description of *Nupela paludigena*. *Phycological Research* 55: 125-134.
- Morales, E. A.**, Vis, M. L., Fernández, E. & Kociolek, P. 2007. Epilithic diatoms (Bacillariophyta) from cloud forest and alpine streams in Bolivia, South America II: A preliminary report on the diatoms from Sorata, Department of La Paz. *Acta Nova* 3(4): 680-696.
- Lowe, R. L., **Morales, E. A.** & Kilroy, C. 2006. *Frankophila biggsii* (Bacillariophyceae), a new diatom species from New Zealand. *New Zealand Journal of Botany* 44:41-46.
- Morales, E. A. 2006. Algas de Bolivia. *Bolivia Ecológica* 41: 1-36.
- Siver, P. A. Hamilton, P. B. & **Morales E. A.** 2006. Two new planktic species of *Eunotia* (Bacillariophyceae) From Freshwater Waterbodies in North Carolina, U.S.A. *Algological Studies* 119: 1-16.
- Morales, E. A.** & Manoylov, K. M. 2006. *Staurosirella incognita* Morales et Manoylov sp. nov., a non-spiny species from North America, with an emended description of *Staurosirella* Williams et Round (Bacillariophyceae). In: Witkowski, A. (Ed.). *Proceedings of the 18th International Diatom Symposium*. Miedzyzdroje, Poland, 2004. p. 325-336. Biopress Ltd. Bristol, England.
- Edlund, M. B, **Morales, E. A.** & Spaulding, S. A. 2006. The type and taxonomy of *Fragilaria elliptica* Schumann, a widely misconstrued taxon. In: Witkowski, A. (Ed.). *Proceedings of the 18th International Diatom Symposium*. Miedzyzdroje, Poland. pp 53-59. Biopress Limited, Bristol, England.

- Sprouffske, K., Charles, D.F., Morales, E.A., Potapova, M., Ponader, K. C., Winter, D. M. Bell, C., Cotter, P., McCourt, R., Mellott, D., Ratnayaka, C. & Waterman, D. 2006. Academy of Natural Sciences online algae image resources. In: Witkowski, A. (Ed.). Proceedings of the 18th International Diatom Symposium. Miedzyzdroje, Poland 2004. pp 357-361. Biopress Limited, Bristol, England.
- Morales, E. A. 2006. *Staurosira incerta* (Bacillariophyceae) a new fragilarioid taxon from freshwater systems in the United States with comments on the structure of girdle bands in *Staurosira* Ehrenberg and *Staurosirella* Williams et Round. In: Manoylov, K. & Ognjanova, N. (Eds.). Fossil and Recent Phycological studies. Dobrina Temniskova-Topalova. Festschrift. pp. 133-145. Pensoft Publishers and University Publishing House. Sophia, Bulgaria.
- Morales, E. A. 2006. Small *Planothidium* Round et Bukhtiyarova (Bacillariophyceae) taxa related to *P. dau*i (Foged) Lange-Bertalot from the United States. *Diatom Research* 21: 325-342.
- Morales, E. A.** & Manoylov, K. M. 2006. Morphological studies on selected taxa in the genus *Staurosirella* Williams et Round (Bacillariophyceae) from rivers in North America. *Diatom Research* 21: 343-364.
- Siver, P. A., **Morales E. A.**, van de Vijver, B, Smits, M., Hamilton, P. B., Lange-Bertalot, H. & Hains, J. J. 2006. Observations on *Fragilaria longifusiformis* comb. nov. et nom. nov. (Bacillariophyceae), a widespread planktic diatom described from North America and Europe. *Phycological Research* 54: 183-192.
- Morales, E. A.** & Le, M. 2005. The taxonomy of the diatom *Lacunicula sardiniensis* Lange-Bertalot, Cavacini, Tagliaventi et Alfinito and its relationship with the genus *Craticula* Grunow (Bacillariophyceae). *Proceeding of the Academy of Natural Sciences of Philadelphia* 154- 155-161.
- Morales, E. A.** & Le, M. 2005. A new species of the diatom genus *Adlafia* (Bacillariophyceae) from the United States. *Proceeding of the Academy of Natural Sciences of Philadelphia* 154-149-154.
- Morales, E. A. 2003. *Fragilaria pennsylvanica*, a new diatom (Bacillariophyceae) species from the United States of America with comments on the taxonomy of the genus *Synedra* Ehrenberg. *Proceedings of the Academy of Natural Sciences of Philadelphia* 153: 155-166.
- Morales, E. A.** and Edlund, M. B. 2003. Studies in selected fragilarioid diatoms (Bacillariophyceae) from Lake Hovsgol, Mongolia. *Phycological Research* 51: 225-239.
- Manoylova, K. M., **Morales, E. A.** and Stoermer, E. F. 2003. *Staurosira stevensonii* (Bacillariophyta) a new species from Florida, USA. *European Journal of Phycology* 38: 65-71.
- Morales, E. A.**, Trainor, F. R. and Schlichting, C. 2002. Phenotypic plasticity in the algae: ecological and evolutionary implications. *Constancea* 83 (electronic/peer reviewed pub.: http://ucjeps.berkeley.edu/constancea/83/morales_et al/plasticity.html).
- Morales, E. A. 2002. Studies in selected fragilarioid diatoms of potential indicator value from Florida (USA) with notes on the genus *Opephora* Petit (Bacillariophyceae). *Limnologica* 32:102-113.
- Morales, E. A.**, Siver, P. A. and Trainor, F. R. 2001. Identification of diatoms during ecological assessments: Comparison between light and scanning electron microscopy. *Proceedings of the Academy of Natural Sciences of Philadelphia* 151: 29-37.

- Morales, E. A. 2001. Morphological studies in selected fragilarioid diatoms (Bacillariophyceae) from Connecticut waters, USA. *Proceedings of the Academy of Natural Sciences of Philadelphia* 151: 39-54.
- Morales, E. A.** and Trainor, F. R. 2001. Las algas: conceptos críticos en la evaluación de su diversidad [**The algae: critical concepts for the evaluation of their diversity**]. In Primack, R. Rozzi, R. Feisinger, P. Dirzo, R. & Massardo, F. (Eds.) *Fundamentos de Conservación Biológica. Perspectivas Latinoamericanas* [**Fundamentals of Conservation Biology. Latin American Perspectives**]. p. 77-80. Fondo de Cultura Económica. México.

Some Reports and Protocols

- Clason, T., Acker, F., **Morales, E. A.** & Marr, L. 2002. Protocol P-13-39. Analysis of diatoms on microscope slides prepared from USGS NAWQA Program algae samples. In Charles, D. F., Knowles, C. & Davis, R. S. (Eds.). *Protocols for the Analysis of Algal Samples Collected as Part of the U. S. Geological Survey National Water-Quality Assessment Program*. p. 61-71. The Academy of Natural Sciences of Philadelphia. Report No. 02-06.
- Morales, E.A.** & Hamilton, P. B. 2002. *Seventh NAWQA Taxonomy Workshop on Harmonization of Algal Taxonomy*. Report No. 02-21. Patrick Center for Environmental Research, ANSP, Philadelphia, PA. 36 pp. (contains 17 plates).
- Mantell, J.M., Potapova, M., Mellott, D. T., Mays, S.J., Keller, D.H., **Morales, E. A.**, Charles, D. F., Sprouffs, K. M., & Collins, J. 2007. Procedures for making additions to the Academy of Natural Sciences of Philadelphia Diatom herbarium's New Species File. Protocol No. P-13-67. Rev 1. Patrick Center for Environmental Research, ANSP, Philadelphia, PA. 41 pp.