

# Jeanmaire Molina

Assistant Professor  
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## PROFESSIONAL PREPARATION

- 2003-2009      **RUTGERS UNIVERSITY, NJ, USA**  
PhD, Ecology & Evolution  
*Dissertation:* Evolution, pollination biology, and biogeography of the grape relative *Leea* (Leeaceae, Vitales)
- 1997-2001      **UNIVERSITY OF THE PHILIPPINES  
DILIMAN, QUEZON CITY, PHILIPPINES**  
Bachelor of Science Degree in Biology  
*Thesis title:* Expression and purification of the recombinant dengue serotype-3 nonstructural fusion protein in *Escherichia coli*

## APPOINTMENTS

- Jan. 2011 – Present      **Assistant Professor**  
*Department of Biology, Long Island University-Brooklyn*  
(Courses taught/designed: General Biology, Ethnobotany, Medicinal Botany)
- Jan. 2011 – Present      **Visiting Research Scientist**  
*Center for Genomics and Systems Biology, New York University*
- June – July 2013      **Visiting Professor**  
*Institute of Biology, University of the Philippines, Diliman, Philippines*
- Jan. 2009 – Dec. 2010      **Postdoctoral Scientist (Rice Evolutionary Genomics)**  
*Dr. Michael Purugganan's Lab, New York University*
- Dec. 2003 – 2008      **Research assistant (Plant Systematics)**  
*Dr. Lena Struwe's Lab, Rutgers University*
- Aug. 2003 – Dec. 2008      **Teaching Assistant (General Biology, Concepts in Biology, General Microbiology)**  
*Rutgers University*
- Jun – Aug. 2003      **Botany Research Associate**
- Nov. 2001– Jun 2002      *Palanan Forest Dynamics Plot (PFDP), Philippines*  
*Center for Tropical Forest Science-Arnold Arboretum (CTFS-AA) and*  
*Conservation International (CI)-Philippines*
- Jun 2001– Jan. 2002      **Research Assistant/ Scientific Writer**  
*Research and Biotechnology Division (RBD),*  
*St. Luke's Medical Center, Philippines*

## SPECIAL TRAINING

- Phylogenomics symposium and software school. June 19-20, 2014. Raleigh Convention Center, Raleigh, NC.
- iPLANT Workshop, bioinformatics Tools for Plant Science. July 28, 2013. Hilton-Riverside, New Orleans, LA.
- Medical Botany, 12 hrs, Continuing Adult Education. New York Botanical Garden, NY, USA (Spring 2013)
- Perl I. Basics of Perl Programming. School of Continuing and Professional Studies, New York University, NY, USA (January-May 2010)
- Summer Institute in Statistical Genetics, University of Washington, Seattle, Washington, USA (June-July 2009)
- International Field Biology Course, CTFS-AA, Lambir Hills National Park, Sarawak, Malaysia (July 15-Aug. 15, 2004)

## GRANTS/AWARDS

- Graduate School of New Brunswick, Rutgers University, 2004 (\$1000)
- J. and J. Ruinen Fellowship in Tropical Biology and the Center for Tropical Forest Science-Arnold Arboretum Asia Program of Harvard University, 2005 (\$2700)
- Annie's Homegrown Environmental Scholarship, 2006 (\$1000)
- Academic Excellence Award, Rutgers Dept. of Ecology, Evolution & Natural Resources, 2006 (\$1000)
- Systematics Research Fund, The Linnean Society of London, 2007 (£735)
- DNA Barcoding of Trees in the Palanan Forest Dynamics Plot (PFDP), 2011, Smithsonian Institution (\$2000)
- Visiting Professorship Grant, University of the Philippines-Diliman, 2013 (\$2000)
- ASPB's Women Young Investigator Travel Award, 2014 (\$1000)
- Phylogenomics symposium travel award, 2014 (\$250)
- Professional Development Fund, Long Island University, 2014 (\$2000)

## EXTERNAL REVIEWER

Systematic Botany, Cladistics, Molecular Ecology, Molecular Biology and Evolution, Philippine Science Letters (editorial board member), Molecular Phylogenetics and Evolution

## PROFESSIONAL SOCIETIES

June 2014–present. Member, Society of Systematic Biologists (SSB)  
Dec. 2013–present. Editorial Board member, Philippine Science Letters  
Jan. 2014–present. Member, American Society of Plant Biologists (ASPB)  
Jan. 2011–present. Member. Botanical Society of America (BSA)  
Feb. 2008–present. Member. Philippine Native Plants Conservation Society, Inc. (PNPCSI)  
June 2003–present. Member/Researcher. Center for Tropical Forest Science.

## PUBLICATIONS

- Molina, J**, Hazzouri KM, Nickrent DL, Matthew G, Meyer RS, Pentony MM, Flowers JM, Pelsner P, Barcelona J, Inovejas SA, Uy I, Yuan W, Wilkins O, Michel C, Locklear S, Concepcion GP, Purugganan MD. 2014. Possible loss of the chloroplast genome in the parasitic flowering plant *Rafflesia lagascae* (Rafflesiaceae). *Molecular Biology and Evolution*. doi:10.1093/molbev/msu051
- Molina J**, Wen J, Struwe L. 2013. Systematics and biogeography of the non-viny grape relative *Leea* (Vitaceae). *Botanical Journal of the Linnean Society* 171: 354-376.
- Huang P, **Molina J**, Flowers JM, Rubinstein S, Jackson S, Purugganan MD, Schaal B. 2012. Phylogeography of Asian wild rice, *Oryza rufipogon*: A genome wide view. *Molecular Ecology*. doi: 10.1111/j.1365-294X.2012.05625.x
- Flowers, JM, **Molina J**, Rubinstein S, Huang Pu, Schaal BA, Purugganan MD. 2011. Natural selection in gene dense regions shapes the genomic pattern of polymorphism in wild and domesticated rice. *Molecular Biology and Evolution* 29:675-687.
- Molina J\***, Sikora M\*, Garud N, Flowers JM, Rubinstein S, Reynolds A, Huang P, Jackson S, Schaal BA, Bustamante CD, Boyko AR, Purugganan MD. 2011. Molecular evidence for a single evolutionary origin of domesticated rice. *Proceedings of the National Academy of Sciences USA* 108:8351-8356. (\*Equal authorship)
- Xie X, **Molina J**, Hernandez R, Reynolds A, Boyko AR, Bustamante CD, Purugganan MD. 2011. Levels and patterns of nucleotide variation in domestication QTL regions on rice chromosome 3 suggest lineage-specific selection. *PLoS ONE* 6(6): e20670. doi:10.1371/journal.pone.0020670
- K. Mather\*, **J. Molina\***, J. Flowers, S. Rubinstein, B. Rauh, A. Lawton-Rauh, A. Caicedo, K. L. McNally and M. Purugganan. 2010. Migration, isolation and hybridization in island crop populations: The case of Madagascar rice. *Molecular Ecology* 19: 4892-4905. (\*Equal authorship).
- Molina, J**. 2009. Floral biology of Philippine morphospecies of the grape relative *Leea* (Leeaceae). *Plant Species Biology* 24: 53-60.
- Molina, J** and L. Struwe. 2009. Utility of secondary structure in phylogenetic reconstructions using nrDNA ITS sequences – an example from Potalieae (Gentianaceae: Asteridae). *Systematic Botany* 34: 414-428.
- Molina, J** and L. Struwe. 2008. Revision of ring-gentians (*Symbolanthus*, Gentianaceae) from Bolivia, Ecuador and Peru, with a first assessment of conservation status. *Systematics and Biodiversity* 6: 477-501.

- Co, L., J. La Frankie, D. Lagunzad, K. Pasion, H. Consunji, N. Bartolome, S. Yap, **J. Molina**, M. Tongco, U. Ferreras, S. Davies, and P. Ashton. 2006. *Forest Trees of Palanan, Philippines: A Study in Population Ecology*. Center for Integrative and Development Studies, University of the Philippines-Diliman, Philippines.
- Molina, J.** and L. Struwe. 2004. *Neuburgia novocaledonica*, comb. nov. and the first record of domatia in the family Loganiaceae. *Australian Journal of Systematic Botany* **17**: 399-406.
- Co, L., D. Lagunzad, J. LaFrankie, N. Bartolome, **J. Molina**, S. Yap, H. Garcia, J. Bautista, E. Gumpal, R. Arano, and S. Davies. 2004. Palanan Forest Dynamics Plot, Philippines in: E.C. Losos & E.G. Leigh, Jr. (eds.). *Tropical Forest Diversity and Dynamism: Findings from a Large-Scale Plot Network*, pp. 574-584. University of Chicago Press, USA.
- Co, L., N. Bartolome, **J. Molina**, and S. Yap. 2003. *Pictorial Guide to the Tree and Shrub Flora of the Palanan Forest Dynamics Plot and Vicinity, Northern Sierra Madre Natural Park*. Published by Conservation International and the Department of Environment and Natural Resources, Philippines. 18 pages, 100 color photographs.

## PRESENTATIONS

- Molina, J.** (presenting author) and M.D. Purugganan. Possible loss of the chloroplast genome in the parasitic flowering plant, *Rafflesia* [Poster presentation]. American Society of Plant Biologists, July 12-16, Portland, Oregon.
- Molina, J.** Tracing the Evolutionary Origin of Asian Rice [Oral Presentation]. Invited Talk. July 2, 2013. Natural Science Research Institute, University of the Philippines-Diliman.
- Molina, J.** Exhuming the Corpse Flower: Evolutionary Genomics of the Plant Parasite *Rafflesia* [Oral Presentation]. Invited Talk. June 17, 2013. Institute of Biology, University of the Philippines-Diliman.
- Molina, J.** Evolutionary Genomics of *Rafflesia* [Oral Presentation]. June 10, 2013. Symposium on Marine Biology, Natural Products, and Neuroscience. Marine Science Institute, University of the Philippines-Diliman.
- Molina, J.** Exhuming the Corpse Flower: What can *Rafflesia*'s Genome Tell us? [Oral Presentation]. April 29, 2013. Long Island University-Brooklyn, USA.
- Molina, J.** Exhuming the Corpse Flower: What can *Rafflesia*'s Genome Tell us? [Oral Presentation]. Invited Talk. Feb. 26, 2013. Empire State College-State University of New York.
- Molina J.** Asian Rice Origin: Will we ever know? [Oral Presentation]. Nov. 27, 2010. Institute of Biology, University of the Philippines-Diliman, Philippines.
- Molina, J.** (presenting author), J.M. Flowers, S. Rubinstein, K. Clemenza, N. Bhambra, P. Huang, B. Schaal, and M.D. Purugganan. Identifying candidate domestication genes for rice crop improvement [Poster presentation]. Tropical biodiversity: surviving the food, energy and climate crisis. July 20-24, 2010. Bali, Indonesia.
- Molina, J.** Phylogeny and biogeography of Leeaceae (Vitales): Laurasian tertiary dispersals to Gondwanan continents [Poster presentation]. *Frontiers in Plant Systematics*. July 7-9, 2010. Beijing, China.
- Molina, J.** The collapse of Philippine biodiversity: A global catastrophe [Oral presentation]. Invited talk. Jan. 8, 2010. New York Botanical Garden.
- Molina, J.** (presenting author), J.M. Flowers, S. Rubinstein, K. Clemenza, N. Bhambra, P. Huang, B. Schaal, and M.D. Purugganan. The evolutionary genomics of rice domestication [Poster presentation]. Sixth International Rice Genetics Symposium. Nov. 16-19, 2009. Manila, Philippines.
- Molina, J.** Phylogeny and floral biology of *Leea* [Oral presentation]. Rutgers- Penn- Princeton Graduate Student Conference. Mar. 30, 2007, Rutgers University, NJ.
- Molina, J., L. Struwe** (presenting author), and E. Green. Phenology and pollination of the ancestral grape relative *Leea* (Leeaceae/Vitaceae) [Poster presentation]. Botany Conference. July 28-Aug. 2, 2006. California State University-Chico, CA.
- Molina, J.** (presenting author) and L. Struwe. The phylogeny and floral ecology of *Leeaceae* [Oral presentation]. Northeast Ecology and Evolution Conference 2005, Penn State University, PA.

## COLLABORATORS & OTHER AFFILIATIONS

### (i) Collaborators

- Kress J, Erickson D: National Museum of Natural History, Smithsonian Institution, DC, USA
- Matias, J: Poseidon Sciences, Miagao, Iloilo, Philippines
- Novy, A: US Botanic Garden, Washington, DC, USA
- Purugganan, MD: Center for Genomics and System Biology, New York University, NY, USA;

- Yap S: Institute of Biology, University of the Philippines-Diliman.

**(ii) Students advised/currently advised**

- Current graduate adviser to Sharday Weaver, Yanille Taveras, and Camilla Xavier (MSc students, LIU-Brooklyn, Fall 2014-Spring 2015)
- Former graduate adviser to Claire-Iphanise Michel and committee member to Pamela Reyes and Klodiana Jorgii (MSc students, LIU-Brooklyn, Fall 2013-Summer 2014).

**REFERENCES**

**Dr. Michael Purugganan**

Dorothy Schiff Professor of Genomics  
and Dean of Science  
Center for Genomics and Systems Biology  
New York University, NY, USA  
Tel. (212) 9929628  
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**Dr. Lena Struwe**

Associate Professor  
Dept. of Ecology, Evolution & Natural Resources  
Rutgers University, NJ, USA  
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**Dr. Jun Wen**

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