*Curriculum vitae*

SUNSHINE A. VAN BAEL

Tulane University

Department of Ecology and Evolutionary Biology

Boggs 400

6823 St. Charles Avenue

New Orleans, LA 70118

**EDUCATION:**

2003 Ph.D. University of Illinois at Urbana-Champaign

Department of Animal Biology and Program in Ecology and Evolutionary Biology

Advisors: Dr. Jeffrey Brawn and Dr. Scott Robinson

1996 B.A. with honors in Biology, University of Chicago

Advisor: Dr. Stephen Pruett-Jones

**RESEARCH INTERESTS:**

Community ecology, microbial ecology, plant-animal-fungal interactions, coastal ecology, tropical agriculture and biodiversity.

**APPOINTMENTS:**

2020 - Editor-in-Chief, *Ecosphere*, and chair of Agroecosystems track

2019 - Associate Professor, Tulane University

2015 - Research Associate, Smithsonian Tropical Research Institute

2016 - 2018 The Burk-Kleinpeter Inc. Professor in Science and Engineering, Tulane University

2012 - 2018 Assistant Professor, Tulane University

2010 - 2012 Adjunct Faculty, School of Life Sciences, Arizona State University

2009 - 2012 Associate Scientist, Smithsonian Tropical Research Institute

2004 - 2009 Post-doctoral fellow, Smithsonian Tropical Research Institute

2003 - 2004 Post-doctoral fellow, Smithsonian Migratory Bird Center

**GRANTS, FELLOWSHIPS AND AWARDS:**

2024 Tulane University School of Science and Engineering, Distinguished Professor – All Around.

2023 National Science Foundation, “MCA: Interactions between density dependence and environmental stress in

plant-microbial symbioses” S. Van Bael, ($332,488).

2022 National Science Foundation, ITE 2230769 “NSF Convergence Accelerator Track E: Glass Recycling to Restore the Coast” Phase 2, J. Albert, F. Trautmann, S. Van Bael, E. Meselhe and K. Russell, ($5,000,000).

2022 National Science Foundation, CBET 2115450 “SRS RN: Hybrid Water Infrastructure and Regional Sustainability - Planning a Convergence Science Approach in Greater New Orleans,” J. Lewis, S. Van Bael, B. Roberts, E. Meselhe ($149,343).

2021 National Science Foundation, ITE 2137730 “NSF Convergence Accelerator Track E: Using Recycled Glass Sand to Promote Resilience and the Blue Economy in Coastal Communities,” Phase 1, (J. Albert at al. (Van Bael is Senior Personnel)) ($716,823).

2021 LA Seagrant “Inoculation of baldcypress with salt-tolerant endophytes”, S. Van Bael ($3000).

2021 National Science Foundation, DEB 2116358 “RAPID: From microbes to new tropical forests: an experimental test of fungal specialization on host tree genotypes in the context of a reforestation experiment.” S. Van Bael and J. Karubian, ($199, 898).

2020 The ByWater Institute, Tulane University – “Canal Backfilling for Marsh Restoration in Coastal Louisiana” K. Clay, E. Farrer, S. Van Bael, M. Allison, E. Meselhe ($10,000).

2019 Lavin-Bernick Fellowship, Tulane University – “Root symbiotic fungal communities in a mangrove ecosystem” ($3518).

2018 Grant to support undergraduate research – LA Sea Grant UROP Program – “Baldcypress microbial communities under flooding and drought stress” ($2500).

2018 The ByWater Institute, Tulane University – “New integrative molecular eco-epidemiological approach of *Trypanosoma cruzi* transmission dynamics in the southern US” C. Herrera, M. Blum, S. Van Bael, J. Hyman, E. Dumonteil, ($23,200).

2017 Graduate Student Society Association – GSSA SSE Faculty Award for teaching excellence.

2017 Lavin-Bernick Fellowship, Tulane University – “The microbial symbionts of baldcypress and flooding stress” ($3071).

2016 Grant to support undergraduate research – CELT, Tulane University, “Flooding and baldcypress symbionts” ($2000).

2016 Grant to support undergraduate research – Louisiana Board of Regents SURE program, “Flooding and baldcypress symbionts” ($4500).

2016 National Science Foundation, DEB 1556287 “Collaborative Research: Extending leaf functional trait ecology to leaf symbionts” S. Van Bael, A. E. Arnold, S.J. Wright ($186,972).

2016 GoMRI, “Chemical evolution and plant-microbe degradation of petroleum in saline marsh plants and

soils” S. Van Bael, K. Papadopolous, C. Gunch and J. Pardue ($1,580,319).

2015 Grant to support undergraduate research – LA Sea Grant UROP Program “The symbionts of baldcypress along a salt gradient” ($2500).

2015 Grant to support undergraduate research – Louisiana Board of Regents SURE program, “The

symbionts of baldcypress along a salt gradient” ($4500).

2014 Grant to support undergraduate research – CELT, Tulane University, “The symbionts of baldcypress trees and environmental stress” ($2000).

2014 Grant to support undergraduate research – Newcomb Institute, Tulane University, “Leaf traits and foliar endophytes in tropical forest plant communities” ($1800).

2014 Grant to support undergraduate research – Louisiana Board of Regents SURE program, “The endophytes of bald cypress trees in Southeastern Louisiana” ($4500).

2013 Grant to support undergraduate research – Newcomb Institute, Tulane University, “Microbiological diversity and defense in ant agriculture.” ($2500).

2013 Grant to support undergraduate research – CELT, Tulane University, “Using endophytic fungi

of *Spartina alterniflora* to improve coastal restoration efforts” ($2000).

2013 Faculty Enhancement Grant, Center for Bioenvironmental Research, Tulane University, “The fungal

endophytes of *Spartina alterniflora* in degraded, natural and restored sites of Southeastern Louisiana”

S. Van Bael and D. Kandalepas ($12,600).

2012 National Science Foundation, “Research Experience for Undergraduates Supplement” S. Van Bael ($5,950).

2011 Arizona State University – Smithsonian Tropical Research Institute (STRI) Collaborative Research “Drivers of Microbial Community Structure and Function in Tropical Soils” F. Garcia-Pichel, E.Herre, B. Turner, S. Van Bael ($141,787).

2011 Smithsonian Restricted Endowment Program, “Mechanisms of fungal-mediated protection in tropical plants” S. Van Bael, C. Estrada, W. Wcislo ($49,500).

2010 National Science Foundation DEB 0949602, “Conflicts among members of interacting symbioses:

How do symbiotic fungi influence plant defense against leaf-cutting ants?” S. Van Bael, W. Wcislo,

S. Rehner ($314,524).

2010 Panama’s Secretary of Science and Technology, “National Investigator,” S. Van Bael ($21,600).

2010 Panama’s Secretary of Science and Technology, “How do endophytic fungi influence leaf removal by leaf- cutting ants?” S. Van Bael, W. Wcislo, H. Fernandez-Marin, A. Bethancourt ($48,766).

2009 Arizona State University – Smithsonian Tropical Research Institute (STRI) Collaborative Research

Grants “Sustainability of ecosystem services: From local to global” with J. Hall, A. Kinzig and C. Perrings ($15,000 to Van Bael).

2009 Smithsonian Scholarly Studies Program, “Symbionts collide: Do plants use symbiotic fungi to

defend themselves from fungi-farming ants?” W. Wcislo and S. Van Bael ($57,000).

2007 STRI, Earl S. Tupper Fellowship ($128,000).

2005 American Association of University Women, Post-doctoral Fellowship ($30,000).

2004 NSF International Research Fellowship Program ($93,374).

2003 Smithsonian Institute Post-doctoral fellowship, National Zoo ($41,600).

2001 The Andrew W. Mellon Foundation Comparative Tropical Ecology Course

2000 Frank M. Chapman Memorial Fund, American Natural History Museum

2000 American Ornithologist Union Graduate Awards

2000 U. S. Environmental Protection Agency STAR Fellowship ($83,540).

2000 Smithsonian Pre-doctoral Fellowship (awarded but not accepted)

1999 University of Illinois Research Board Grant, with J. Brawn ($19,094).

1. Smithsonian Short-term Fellowship, STRI ($2300).

1998 University Fellowship, University of Illinois at Urbana-Champaign

**GRANT APPLICATIONS IN REVIEW**

Albert, J., Russell, K. Van Bael, S., Escarra, M. READY for change in New Orleans. Gulf Futures Challenge.

**PUBLICATIONS:**

61. Aponte-Rolon, B., Arnold, E.A., Sanchez-Julia, M., **Van Bael, S. A.** (2024). Evaluating the role of endophyte-rich leaves in protecting tropical trees from a generalist herbivore and pathogen. *Functional Ecology*  1-19.

60. Formel, S. K., Martin, A. M., Pardue, J. H., Elango, V., Johnson, K., Gunsch, C., ... & **Van Bael, S.** (2023). Decay of oil residues in the soil is enhanced by the presence of *Spartina alterniflora*, with no additional effects from microbiome manipulation. *Frontiers in Soil Science*, 74, 10.3389.

59. Lumibao, C. Y., Torres Martínez, L., Megonigal, J. P., **Van Bael, S. A**., & Blum, M. J. (2022). Microbial mediation of salinity stress response varies by plant genotype and provenance over time. *Molecular Ecology*, *31*(17), 4571-4585.

58. Tellez, P., Arnold, A.E., Leo, A., Kitajima, K., **Van Bael, S.A.** (2022) Traits along the leaf economics spectrum are associated with communities of foliar endophytic symbionts. *Frontiers in Microbiology,* 13:927780

57. Arnold, A.E. and **Van Bael, S.A.** (2024). Endophytic fungi: dimensions of diversity within tropical leaves. In The First 100 Years of Research on Barro Colorado Island: Plants and Ecosystems, Eds. S.J. Wright and H. Mueller-Landau. Smithsonian Institution Scholarly Press.

56. Farrer, E. C., **Van Bael, S. A.,** Clay, K., & Smith, M. K. (2022). Plant-Microbial Symbioses in Coastal Systems: Their Ecological Importance and Role in Coastal Restoration. *Estuaries and Coasts*, 1-18.

55. Formel, S.K., Mighell, K.L., Kandalepas, D., Jarrell, E., Bernik, B.M., Elango, V., Pardue, J.H., Blum, M.J. and **Van Bael, S.A.,** (2022) Spatial and temporal comparisons of salt marsh soil fungal communities following the Deepwater Horizon spill. *Wetlands Ecology and Management*, pp.1-18.

54. Addis, S.D., Formel, S.K., Kim, Y.J., Varner, P.B., Raudabaugh, D.B., Lefevre, E., Bernik, B.M., Elango, V., **Van Bael, S.A.,** Pardue, J.H. and Gunsch, C.K., (2022) Alterations of endophytic microbial community function in *Spartina alterniflora* as a result of crude oil exposure. *Biodegradation*, pp.1-12.

53. **Van Bael, S. A.** (2020). Fungal Diversity. *Diversity,* 12(10), 437.

52. Tellez, P. H., Woods, C. L., Formel, S., & **Van Bael, S. A.** (2020). Relationships between Foliar Fungal Endophyte Communities and Ecophysiological Traits of CAM and C3 Epiphytic Bromeliads in a Neotropical Rainforest. *Diversity*, *12*(10), 378.

51. Torres-Martinez, L., Sanchez-Julia, M., Kimbrough, E., Hendrix, T., Hendrix, M., Day, R.H., Krauss, K.W., **Van Bael, S. A.** (2020) Influence of soil microbiota on *Taxodium distichum* seedling performance during extreme flooding events, *Plant Ecology*, *221*(9), 773-793.

50. Lumibao, C.Y., Kimbrough, E., Formel, S.K., From, A., Day, R.H., Conner, W.H., Krauss K.W., and **Van Bael, S.A**.(2020).Salinity, water level, and forest structure contribute to baldcypress *(Taxodium distichum)* rhizosphere and endosphere community structure. *Wetlands*, 1-10.

49. Lumibao, C.Y., Kimbrough, E., Day, R.H., Conner, W.H., Krauss K.W., and **Van Bael, S.A**.(2020). Divergent biotic and abiotic filtering of root endosphere and rhizosphere soil fungal communities along ecological gradients. *FEMS Microbiology Ecology*, 96 (7) fiaa124.

48. Lumibao, C.Y., Bernik, B.M., Formel, S., Mighell, K.L., Kandalepas, D., Pardue, J.,**Van Bael S.A.**, Blum, M.J.

2020. Rhizosphere microbial communities reflect genotypic and trait variation in a salt marsh ecosystem engineer. *American Journal of Botany* 107(6) 941-949.

47. Juvigny-Khenafou, N. P., Zhang, Y. X., Piggott, J. J., Atkinson, D., Matthaei, C. D., **Van Bael, S. A.,** & Wu, N.

2019. Anthropogenic stressors affect fungal more than bacterial communities in decaying leaf litter: a stream mesocosm experiment. *Science of the Total Environment.* 135053.

46. Mighell, K.L., Saltonstall, K., Turner, B., Espinosa-Tason, J., **Van Bael, S.A.** 2019. Abiotic and biotic drivers of endosymbiont community assembly in *Jatropha curcas. Ecosphere* 10(11):e02941.

45. Janowsky, J., Kimbrough, E., Kandalepas, D., Shaffer, G., Formel, S., **Van Bael, S.A.** 2019.

Bacterial and fungal endophyte communities differ in trees of natural versus wastewater-treatment wetlands. *Wetlands Ecology and Management* 27(5) 711-723.

44. Kimbrough, L., Berlow, M., **Van Bael, S. A.** 2018. Water level and salinity drive community structure of culturable baldcypress (*Taxodium distichum*) endophytes in southern Louisiana. *Wetlands* 39(2) 329-335.

43. Lumibao, C., Formel, S. Elango, V., Pardue, J. H., Blum, M., **Van Bael, S. A.** 2018. Persisting responses of salt marsh fungal communities to the Deepwater Horizon oil spill. *Science of the Total Environment*, 642:904-913.

42. Osnas, J. L. D., Katabuchi, M. Kitajima, K. Wright, S. J., Reich, P. B. **Van Bael, S. A.,** Kraft, N. J. B., Samaniego, M. J., Pacala, S. W., and Lichstein, J. W. Divergent drivers of leaf trait variation within species, among species, and among functional groups. PNAS, 115:5480-5485.www.pnas.org/cgi/doi/10.1073/pnas.1803989115.

41. Zheng, M., Weiyao, W., Hayes, M., Nydell, A., Tarr, M. A., **Van Bael, S. A.,** Papadopoulos, K. 2018. Degradation of Macondo 252 oil by endophytic bacteria *Pseudomonas putida*. *Journal of Environmental Chemical Engineering* 6:1 643-648.

40. Washburn, G. and **Van Bael S. A.** 2017. Data on strains of fungi cultured from baldcypress leaves and gall tissue. *Data in Brief Elsevier* 14:793-803.

39. Washburn, G. and **Van Bael S. A.** 2017. Fungal diversity in galls of baldcypress trees. *Fungal Ecology* 29: 85-89.

38. **Van Bael, S. A.,** Estrada C., Arnold, A.E. 2016. Foliar endophyte communities and leaf traits in tropical trees. Book Chapter in “The Fungal Community,” Editors Dighton, J. and White, J., CRC Press. Pp. 79-88.

37. Mighell, K., and **Van Bael S. A.** 2016. Selective elimination of microfungi in leaf-cutting ant gardens. *Fungal Ecology* 24:15-20.

36.Hall, J. et al., Moss. D., Stallard R. …, **Van Bael S. A.** et al. 2016. *Managing Watersheds for Ecosystem Services in the Steepland Neotropics*. Inter-American Development Bank <https://publications.iadb.org/handle/11319/7233>.

35. Tellez, P. H., Rojas, E., **Van Bael, S. A.** 2016. Red coloration in young tropical leaves associated with reduced fungal pathogen damage. *Biotropica,* 48(2)150-153.

34. Maas, B., D. S. Karp, S. Bumrungsri, K. Darras, D. Gonthier, J. C. C. Huang, C. A. Lindell, J. J. Maine, L. Mestre, and N. L. Michel…**S. A. Van Bael**…K. Williams-Guillen. 2015. Bird and bat predation services in tropical forests and agroforestry landscapes. *Biological Reviews*. DOI: 10.1111/brv.12211

33. Kandalepas, D., Blum, M. J., **Van Bael, S. A.** 2015. Shifts in symbiotic endophyte communities in a foundational salt marsh grass following oil exposure from the Deepwater Horizon oil spill. *PLOSone*, 10(4): e0122378. doi:10.1371/journal.pone.0122378.

32. Hammer, T. J., **Van Bael, S. A.** 2015. An endophyte-rich diet increases ant predation on a specialist

herbivorous insect. *Ecological Entomology,* 40: 316-321.

31. Estrada, C., Degner, E.C., Rojas, E.I., Wcislo, W.T., **Van Bael, S. A.** 2015. The role of endophyte diversity in protecting plants from defoliation by leaf-cutting ants. *Current Science*, 109: 55-61.

30. Mejía L.C., Herre E.A., Sparks J.P., Winter K., García M.N., **Van Bael S.A**., Stitt J., Shi Z., Zhang Y., Guiltinan M.J. and Maximova S.N. 2014. Pervasive effects of a dominant foliar endophytic fungus on host genotypic and phenotypic expression in a tropical tree. *Frontiers in Microbiology*, 5:479. doi: 10.3389/fmicb.2014.00479.

29. Estrada, C., Rojas, E., Wcislo, W., and **S. A. Van Bael.** 2014. Fungal endophyte effects on leaf chemistry alter the *in vitro* growth rates of leaf-cutting ants’ fungal mutualist, *Leucocoprinus gongylophorus.*  *Fungal Ecology* 8, 37-45.

**28. Van Bael, S. A.,** R. Zambrano and J. E. Hall. 2013. Bird communities in forested and human modified landscapes of Central Panama: a baseline survey for a native species reforestation treatment. *International Journal of Biodiversity Science, Ecosystem Services & Management* DOI: 10.1080/21513732.2013.842187.

27. Coblentz, K. E., and **S. A. Van Bael**. 2013. Field colonies of leaf-cutting ants select plant materials containing low abundances of endophytic fungi. *Ecosphere* 4(5).

26. Estrada, C., Wcislo, W., **S. A. Van Bael**. 2013. Symbiotic fungi alter plant chemistry that discourages leaf-cutting ants. *New Phytologist* doi: 10.1111/nph.12140.

**25. Van Bael, S. A.,** C. Estrada, S. Rehner, J. F. Santos, W. Wcislo. 2012. Leaf endophyte load influences fungal garden development in leaf-cutting ants. *BioMedCentral Ecology* 12:23.

**24. Van Bael, S. A.,** M. Seid, W. Wcislo. 2012. Endophytic fungi increase the processing rate of leaves by leaf-cutting ants (Atta). *Ecological Entomology* 37:318-321.

**23. Van Bael, S. A.,** C. Estrada, W. Wcislo. 2011. Fungal-fungal interactions in leaf-cutting ant agriculture.

*Psyche* doi:10.1155/2011/617478.

22. Schroth, G., D. Faria, M. Araujo, L. Bede, **S. A. Van Bael**, C. R. Cassano, L. C. Oliveira, J. H.C. Delabie. 2011. Conservation in tropical landscape mosaics: the case of the cacao landscape of southern Bahia, Brazil. *Biodiversity and Conservation* 20(8): 1635-1654.

21. Urriola, J., A. Bethancourt, **S. A. Van Bael**. 2011. Limited persistence of endophytic fungi in leaf-cutting ant gardens. *Neotropical Biology & Conservation* 6(1): 1-4.

20. Onoda, Y., M. Westoby ...**S. A. Van Bael**…et al. Global patterns of leaf mechanical properties. 2011. *Ecology*

*Letters* 14: 301-312.

19. Connahs, H., A. Aiello, **S. A. Van Bael**, G. Rodríguez-Casteńada. 2011. Caterpillar abundance and parasitism in a seasonally dry versus wet tropical forest of Panama. *Journal of Tropical Ecology* 27:51-58.

18. Bittleston, L. S., F. Brockmann, W., Wcislo, **S. A. Van Bael**. 2011. Endophytic fungi reduce leaf-cutting ant damage to seedlings. *Biology Letters* 7: 30-32.

17. Rojas, E. I., S. A. Rehner, G. J. Samuels, **S. A. Van Bael…** et al. 2010. *Colletotrichum gloeosporioides* sl associated with *Theobroma cacao* and other plants in Panama: multilocus phylogenies distinguish host-associated pathogens from asymptomatic endophytes. *Mycologia* 102: 1318-1338.

16. Mooney, K., D. Gruner, N. Barber, **S. A. Van Bael**, S. Philpott, R. Greenberg. 2010. Interactions among predators and the cascading effects of vertebrate insectivores on plants. *Proceedings of the National Academy of Sciences* 107(16): 7335-7340.

**15. Van Bael, S. A.**, H. Fernández-Marín, M. Valencia, E. Rojas, W. Wcislo, E.A. Herre. 2009. Two fungal symbioses collide: Endophytic fungi are not welcome in leaf-cutting ant gardens. *Proceedings Royal Society of London – Series B* 276: 2419-2426.

**14. Van Bael, S. A.**, M. Valencia, E. Rojas, N. Gómez, D.M. Windsor, & E. A. Herre. 2009. Effects of foliar endophytic fungi on the preference and performance of a leaf beetle, *Chelymorpha alternans* Boheman (Chrysomelidae: Cassidinae). *Biotropica* 41:221-225.

13. L. C. Mejía, E. I. Rojas Z. Maynard, A. E. Arnold, **S. A. Van Bael**, G. J. Samuels, N. Robbins, E. A. Herre. 2008. Endophytic fungi as biocontrol agents of *Theobroma cacao* pathogens, *Biological Control* 46: 4-14.

**12. Van Bael, S. A.,** S. Philpott, R. Greenberg, P. Bichier, N. Barber, K. Mooney and D. Gruner. 2008. Birds as predators in tropical agroforestry systems: a meta-analysis. *Ecology* 89: 928-934*.*

**11. Van Bael, S. A.**, P. Bichier and R. Greenberg. 2007. Bird predation on insects reduces damage to the foliage of cocoa trees (*Theobroma cacao*) in western Panama. *Journal of Tropical Ecology* 23:715-719.

**10. Van Bael, S. A.,** I. Ochoa, P. Bichier and R. Greenberg. 2007. Bird diversity in cacao farms and forest fragments of western Panama. *Biodiversity and Conservation* 16:2245-2256.

9. E. A. Herre, L. C. Mejía, D. Kyllo, E. I. Rojas, Z. Maynard, A. Butler, **S. A. Van Bael.** 2007. Antipathogenic effects of endophytic fungi in roots and leaves of *Theobroma cacao:* implications for tropical host plants. *Ecology* 88: 550-557.

8. Herre, E.A., **S. A. Van Bael**, Z. Maynard, N. Robbins, J. Bischoff, A. E. Arnold, E. Rojas, L. C. Mejia, R. A. Cordero, C. Woodward, and D. A. Kyllo. 2005. Tropical plants as chimera: some implications of foliar endophytic fungi for the study of host plant defense, physiology, and genetics. Book chapter in “Biotic Interactions in the Tropics.” Eds. D. Burslem, M. Pinard & S. Hartley. Cambridge University Press. Cambridge, UK.

**7. Van Bael, S. A**., Z. Maynard, N. Robbins, J. Bischoff, A. E. Arnold, E. Rojas, L. C. Mejia, D. A. Kyllo, and E. A. Herre. 2005. Emerging perspectives on the ecological roles of endophytic fungi in tropical plants. Book chapter in “The Fungal Community: Its organization and role in the ecosystem.” Eds. J. Dighton, P Oudemans & J. White. Taylor & Francis Publishing Group, Boca Raton, FL, USA.

**6. Van Bael, S**. **A.**, Aiello, A., Valderrama, A., Medianero, E., Samaniego, M. and S. J. Wright. 2004. General herbivore outbreak of following an El Niño related drought in a lowland Panamanian forest.*Journal of Tropical Ecology* 20: 625-633.

5. Pauw, A., **S. A. Van Bael**, H. Peters et al. 2004. Physical damage in relation to carbon allocation strategies in tropical forest tree saplings. *Biotropica* 36: 410-413.

**4. Van Bael, S. A.** and J. Brawn. 2005. The direct and indirect effects of insectivory by birds in two contrasting Neotropical forests. *Oecologia* 143: 106-116*.*

**3. Van Bael, S. A**., J. Brawn, and S. Robinson. 2003. Birds defend trees from insect herbivores in a Neotropical forest canopy. *Proceedings of the National Academy of Sciences,* 100:8304-8307.

**2. Van Bael S.** and S. Pruett-Jones. 1998. Breeding biology and social behaviour of the Eastern race of the Splendid Fairy-wren, *Malurus splendens melanotus.*  *Emu* 100: 95-108.

**1. Van Bael S.** and S. Pruett-Jones. 1996. Exponential population growth of Monk Parakeets in the United States. *Wilson Bulletin* 108:584-588.

**PUBLICATIONS IN REVIEW/REVISION:**

Sanchez-Julia, M., Arnold, A.E., Aponte-Rolon, B., Carrion, N., Van Bael, S. A. (in review) Leaf traits filter and are shaped by foliar fungal endophyte communities in tropical trees. *Journal of Ecology.*

MacDougal, E., Markel, B.X.L., Farrer, E.C., Ahmad, S., Albert, J., Van Bael S.A. (addressing minor revisions) Wetland plant growth in recycled glass sand versus dredged river sand: Evaluating a new resource for coastal restoration. *Restoration Ecology.*

**PEER-REVIEW:**

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| --- | --- | --- |
| Years | Journals | Total |
| 2003-2007 | *American Natural History, Ecology (3), Journal of Avian Biology, Journal of Field Ornithology, Oecologia, National Science Foundation (2), Oikos (2), Science.* | 12 |
| 2008-2012 | *African Journal of Ecology, Agriculture, Ecosystem & Environment, Biotropica, BMC Ecology, Ecology (2), Microbial Ecology, Oecologia, Oikos,* National Research Foundation of South Africa, National Science Foundation*, PLOSone, Psyche.* | 13 |
| 2013-2017 | *Arthropod-Plant interactions, Biological Conservation, Biological Invations, Ecology, Ecosphere, Evolution, Fungal Biology, Fungal Ecology, Hydrobiologia, ISME, Myrmecological News, Nature, New Phytologist*, National Science Foundation *(2), PLOSone (2), Proceedings B, Restoration Ecology, Scientific Reports.* | 20 |
| 2018 + | *Biotropica (2), Chemoecology (2), Ecology, Ecosphere, Environmental Science and Pollution, FEMS Microbiology Ecology,* German Government Science Foundation*, Journal of Ecology, Microbial Ecology, Mycologia,* National Science Foundation*, New Phytologist, Oxford University Press, Scientific Reports.* | 16 |

**Postdoctoral Advisors:**

Russell Greenberg, Smithsonian National Zoo

Donald Windsor, STRI

William Wcislo, STRI

**Students supervised AT STRI (nationality):**

1. Ellis Rodriguez (Panama), 2. Kimberly Mighell (USA), 3. Anna Kudla (USA), 4. Kyle Coblentz (USA), 5. Ethan Degner (USA), 6. Ruby Zambrano (Panama), 7. Kim Shaffer (USA), 8. Carol Gantes (Panama), 9. Fabiola Santos (Colombia), 10. Michelle Caballero (Panama), 11. Leo Mena (USA), 12. Katherine Arauz (Panama), 13. Gloribel Vergara (Panama), 14. Rosemary Castillero (Panama), 15. Marcos Ramos (Panama), 16. Marija Zavonovik (Serbia), 17. Tobin Hammer (USA), 18. Leonora Bittleston (USA), 19. Franz Brockmann (Nicaragua and Panama), 20. Teresa de Flores (Panama), 21. Mariana Franco (Colombia), 22. Cian Gill (Ireland), 23. Robert Welter (USA), 24. Andrea Concepcion (Panama), 25. Jonathon Hruksa (USA and Nicaragua), 26. Nelva James (Panama), 27. Mariana Valencia (Panama), 28. Luciano Araúz (Panama), 29. Clara Pérez (Panama), 30. Margareta Kalka (USA and Germany), 31. Jill Urriola (Panama), 32. Heidi Connahs (UK), 33. Andre Butler (UK), 34. Luis Ramirez (Panama), 35. Enith Rojas (Panama), 36. Gabriel Patterson (USA), 37. Nathaniel Howard (USA), 38. Carlos Bracho (Panama), 39. Noel Khenafou-Juvigny (France), 40. Emma Tower (USA), 41. Peter Tellez (USA) (20/41 women mentees, 21/41 minorities in STEM).

**STUDENTS SUPERVISED AT TULANE:\***

\*High school students from Lusher Charter School

1. Stephen Suchy, 2. Jordan Hoffman, 3. Kim Mighell, 4. Peter Tellez, 5. Emma Tower, 6. Taryn Farber, 7. Ryan Wolfe, 8. Matthew Moore, 9. Jennifer Janowsky, 10. Elizabeth Kimbrough, 11. George Washburn, 12. Casy Gu, 13. Joshua Lerner, 14. Kathalina Tran, 15. James Sebes, 16. Elaine Broussard, 17. Emma Darr, 18. Ivana Levy, 19. Keiana Cave\*, 20. Stephen Formel, 21. Stephen Cortese, 22. Mallory Kiefer, 23. Courtney Pellegrini, 24. Rebecca Wang, 25. Rebecca Flournoy, 26. Amelia Lourmand, 27. Aurora Duncan, 28. Alison Harrington, 29. Kaylee Arnold, 30. Miranda Hendrix, 31. Max Berdik, 32. Carolyn Babendreier, 33. Clare Lister, 34. Ian Sestak, 35. Caroline Faircloth, 36. Steven Medina, 37. Emma Weisner, 38. Trey Hendrix, 39. Callie Oliver, 40. Sara Schleisenger, 41. Brittany Maldonado, 42. Matthew Moreida, 43. Courtney Pellegrini, 44. Meg Maurer, 45. Julia Simon\* , 46. Allyson Martin, 47. Margaret Conrad, 48. George Richards, 49. Yaseen Khan, 50. Bek Markel, 51. Albert Howell, 52. Nathalie Clarke, 53. Alexandra Greengrass, 54. Erin Chapman, 55. Mareli Sanchez Julia, 56. Bolivar Aponte Rolon, 57. Mary Grace Foster\*, 58. Molly Duncan, 59. Lucy Murray, 60. Anya Mukundan, 61. Olivia Barfield, 62. Reid Belanger 63. Iker Yturralde 64. Blaine Martin (43/64 women, 9/64 minorities in STEM).

**Post-docTORAL SCIENTISTS supervised:**

1. Catalina Estrada (Colombia)

2. Luis Mejia (Panama)

3. Franziska Beran (Germany)

4. Grego Toral (Spain)

5. Demetra Kandalepas (Canada)

6. Brittany Bernik (US)

7. Candice Lumibao (US)

8. Lorena Torres Martinez (Colombia)

9. Rosa Soria Peñafiel (Ecuador)

**TEACHING:**

2017 - “Foundations in Ecology and Evolutionary Biology,” Tulane University

2012- “Entomology,” “Tropical Agroecology,” “Tropical Ecology and Agriculture,” “Insect Biology,” and

“Biostatistics and Experimental Design.”

2011 Co-professor “Tropical Behavioral Ecology and Evolution” Univ. of Copenhagen

2011 Co-professor “Tropical Biology and Conservation” McGill University

2011 Coordinated SENACYT-STRI workshop on proposal writing for Panamanian undergraduates

2010 Lecturer by video conference-Yale School of Forestry and Environment

2009 Co-professor, “Tropical Biology and Conservation,” McGill University

2008 Guest online instructor for “Rainforest Researchers,” Smithsonian Institute

2005 Michigan State University field course in Gamboa

2003 Guest professor “Field Biology,” McGill University

2000 Graduate Teaching Assistant for “Basic Ecology,” and “Animal Behavior”; U. Illinois

1. Professional Tutor and Home School Instructor, Chicago Illinois
2. Education Director and Naturalist, The Fowler Center, Mayville, Michigan

**UNIVERSITY SERVICE:**

2015- Tulane representative to the Board of Delegates at the Organization for Tropical Studies

2017- School of Science and Engineering Nominating Committee

2015-2019 Stone Center for Latin American Studies Executive Committee

2015-2019 Graduate Student Honor Board

2017- 2019 School of Science and Engineering Study Abroad Committee

**PROFESSIONAL DEVELOPMENT:**

2022 – Year-long program “Emerging Leaders at Tulane,” with the Tulane Leadership Institute

2018 – Workshop - Towards New Leadership: Addressing the Representation Gap in Higher Education

2018 – Seminar – National Science Foundation: Research Integrity and Compliance

**EDUCATION AND OUTREACH:**

* Interview with PBS  [https://www.youtube.com/watch?v=s9B\_I6ZkcF4&t=2s&ab\_channel=OntheBrink](https://nam11.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.youtube.com%2Fwatch%3Fv%3Ds9B_I6ZkcF4%26t%3D2s%26ab_channel%3DOntheBrink&data=05%7C01%7Csvanbael%40tulane.edu%7Cc5f922995e1c47e9141a08db6cf21934%7C9de9818325d94b139fc34de5489c1f3b%7C0%7C0%7C638223559281336765%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=23hV6AwrUa3ZQ0Nedy9DY0t1gU5xyLAB1VKngDUYZUs%3D&reserved=0)
* Interview with The Gambit <https://www.nola.com/gambit/news/the_latest/hope-in-a-bottle-a-glass-recycling-project-is-helping-louisiana-reverse-the-effects-of/article_41a97224-6147-11ed-ba1b-3f4adf3ac9d3.html>
* Interview with Bloomberg <https://www.bloomberg.com/news/features/2022-08-25/recycled-glass-sand-could-help-protect-louisiana-s-vanishing-coast>
* Conducted service learning programs with Tulane students at Homer Plessey Charter School, Benjamin Banneker Charter School, Audubon Charter School, Ursaline Academy.
* Taught “Coastal Ecology” (semester-long extension course) to incarcerated women at the Louisiana Correctional Institute for Women.
* NSF – Research Experience for Teachers; hosted 3 biology teachers to learn about our research program in Panama. Worked with the teachers to create curriculum based on their experiences.
* Partners with teachers at Audubon Charter School and Lusher Charter School; in class presentations by lab members, interactions with teachers.
* Creation of “The Kids Master Plan for Coastal Restoration,” a lesson plan and/or workshop for kids to practice making physical models of the coast, with emphasis on climate change. This workshop is now used throughout the New Orleans area, and will soon be piloted in the Dominican Republic, in partnership with Pueblo Science.
* Hosted a high school student as she conducted a project for the New Orleans Science Fair.
* Biannual outreach workshops at Tulane: Girls in STEM at Tulane and Boys at Tulane in STEM.
* Developed a K-5 teaching unit on symbioses for online publication and simultaneous presentation to Panamanian and U.S. primary school students via video conference. <http://www.stri.si.edu/english/kids/symbiosis/index.html>
* Annual presentations to teacher workshops in Panama.
* Presenter at Smithsonian Folklife Festival in Washington, D.C.
* “Smithsonian - Meet our Scientists” interview <http://www.youtube.com/user/SmithsonianVideos>
* Smithsonian-Microsoft webcast conference, “Sustain the Land” <http://www.smithsonianconference.org/shout/>

**PROFESSIONAL AFFILIATIONS & HONORS:**

Member, American Tropical Biology and Conservation Association

Member, Ecological Society of America

**PROFESSIONAL REFERENCES:**

Available upon request

**WEB PAGE:**

<https://vanbaellab.wp.tulane.edu>

On Instagram: vanbael.lab; and #vanbaellab

On Twitter: @vanbaellab