

## Curriculum Vitae

### Basic Information

Name: **Adam P. Karremans**

Birthplace: Leiden, The Netherlands

Date: 21/12/1986

Nationality: Costa Rica and The Netherlands

Home Address: Condominio Hacienda Sacramento, casa 68D, San Juan, La Unión, 30303, Cartago, Costa Rica.

Work Address: Lankester Botanical Garden, University of Costa Rica, P.O. Box 302-7050 Cartago, Costa Rica.

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### Education

**PhD. in Science at Leiden University** - Naturalis Biodiversity Center. Supervisors: Erik Smets; Barbara Gravendeel and Franco Pupulin (obtained November 2015).

Title: Systematic, phylogenetic and pollination studies of *Specklinia* (Orchidaceae).

<https://openaccess.leidenuniv.nl/handle/1887/36432>

MSc. in Plant Sciences with a specialty in Plant Breeding and Genetic Resources at Wageningen University and Research Center (obtained September 2010). Thesis: Phylogenetics of *Stelis* (Orchidaceae: Pleurothallidinae) and closely related genera, based on molecular data, morphological characteristics and geographical distribution in the Central American and Andean Cordilleras. <http://edepot.wur.nl/146921>

BSc. in Agronomy, with a specialty in Phytotechnology at the University of Costa Rica (obtained April 2008).

### Carrier

- **Director**, Lankester Botanical Garden Research Center, University of Costa Rica (January 2019 to present).
- **Full Professor**, University of Costa Rica (Lankester Botanical Garden, October 2010 to present / School of Biology, March 2018 to present).
- **President** of the Administrative Board of the National Museum of Costa Rica (July 2022 to present).
- **Senior representative** of CONARE to the Comisión Institucional para la Gestión de la Biodiversidad CONAGEBio (August 2023 to present).
- Coordinator of the Biodiversity Commission, University of Costa Rica (February 2018 to February 2022).
- Head of Research at Lankester Botanical Garden, University of Costa Rica (September 2014 to February 2016).

- Head of the Horticulture department at Lankester Botanical Garden, University of Costa Rica (January 2011 to March 2014).

### Awards

- *Ambassador's Award* given by the Japanese diplomatic mission, received in name of Lankester Botanical Garden, San José, Costa Rica. October 2023.
- Best poster, 6th Scientific Conference on Andean Orchids. Medellín, Colombia. 2019.
- Best poster, 5th Scientific Conference on Andean Orchids. Cali, Colombia. 2015.
- Best poster, 4th Scientific Conference on Andean Orchids. Guayaquil, Ecuador. 2012.

### Publications

Adam P. Karremans has authored 118 journal papers, 16 book chapters and 4 books.

**h-index:** 22 (calculated January 5<sup>th</sup>, 2025)

**i10-index:** 43 (calculated January 5<sup>th</sup>, 2025)

**Google scholar citations:** 1855 (calculated January 5<sup>th</sup>, 2025)

**Orcid:** 0000-0001-5987-7710

**Books:** 4

**Book chapters:** 16

**Papers:** 118

SJCR Q1: 19

SJCR Q2: 61

SJCR Q3: 9

Others: 26

- Books (4):

**Karremans, A.P.** 2024. *Las Orquídeas y su Polinización*. Turrialba, Cartago, Costa Rica, 162 pp.  
<https://www.adamkarremans.com/product/las-orquideas-y-su-polinizacion/>

**Karremans, A.P.**, Pupulin, F. & Bogarín, D. (eds.). 2024. Proceedings of the VII International Conference on Comparative Biology of Monocotyledons (MONOCOTS VII). San José, Costa Rica, 2024. *Botanical Essays from the Lankester Botanical Garden 1*, 232 pp.  
[https://monicotsvii.com/?page\\_id=5565](https://monicotsvii.com/?page_id=5565)

**Karremans, A.P.** 2023. *Demystifying Orchid Pollination: stories of sex, lies and obsession*. Kew Publishing, Richmond, UK. 440 pp.

**Karremans, A.P.** & Vieira-Uribe, S. 2020. *Pleurothallids Neotropical Jewels - Volume I*. Imprenta Mariscal, Quito, Ecuador. 320 pp.

- Book chapters (16):

**Karremans, A.P.** 2023. El antes y el después de la investigación biológica y ecológica en *Vanilla*. Pp. 160–169 in Pérez García, E. A. *Las Orquídeas: una mirada a la obra del botánico coahuilense Miguel Ángel Soto Arenas*. Asociación Mexicana de Orquideología — Universidad Autónoma de Coahuila.

**Karremans, A.P.** 2022. *Cleisthes* Rich. ex Lindl. Pp. 1404–1405 in: Pupulin, F. (ed.). *Vanishing Beauty - Native Costa Rican Orchids*. Vol. 3. *Restrepia–Zootrophion* and Appendices. Glashütten, Germany, Koeltz Botanical Books.

**Karremans, A.P.** 2022. *Epistephium* Kunth. Pp. 1410–1411 in: Pupulin, F. (ed.). *Vanishing Beauty - Native Costa Rican Orchids*. Vol. 3. *Restrepia–Zootrophion* and Appendices. Glashütten, Germany, Koeltz Botanical Books.

- Karremans, A.P.** 2022. *Vanilla* Mill. Pp. 1350–1359 in: Pupulin, F. (ed.). Vanishing Beauty - Native Costa Rican Orchids. Vol. 3. *Restrepia-Zootrophion* and Appendices. Glashütten, Germany, Koeltz Botanical Books.
- Karremans, A.P.** & G. Rojas-Alvarado. *Stelis* Swartz. 2022. In: Pupulin, F. (Ed.) Vanishing Beauty, Native Costa Rican Orchids. 1 ed. Vol. 3. *Restrepia-Zootrophion* and appendices. Koeltz Botanical Books, Oberreifenberg, pp. 1157–1232.
- Karremans, A.P.** & Pupulin, F. 2022. *Scaphosepalum* Pfitzer [with a new species]. Pp. 1048-1055 in: Pupulin, F. (ed.) Vanishing Beauty - Native Costa Rican Orchids. Vol. 3. *Restrepia-Zootrophion* and Appendices. Glashütte, Germany, Koeltz Botanical Books.
- Karremans, A.P.** & Pupulin, F. 2022. *Specklinia* Lindl. Pp. 1116-1143 in: Pupulin, F. (ed.) Vanishing Beauty - Native Costa Rican Orchids. Vol. 3. *Restrepia-Zootrophion* and Appendices. Glashütte, Germany, Koeltz Botanical Books.
- Pupulin, F. & **Karremans, A.P.** 2022. *Horichia* Jenny. Pp. 1422-1423 in: Pupulin, F. (ed.) Vanishing Beauty - Native Costa Rican Orchids. Vol. 3. *Restrepia-Zootrophion* and Appendices. Glashütte, Germany, Koeltz Botanical Books.
- Pupulin, F. & **Karremans, A.P.** 2022. *Spathoglottis* Blume. Pp. 1114-1115 in: Pupulin, F. (ed.) Vanishing Beauty - Native Costa Rican Orchids. Vol. 3. *Restrepia-Zootrophion* and Appendices. Glashütte, Germany, Koeltz Botanical Books.
- Pupulin, F., & **Karremans, AP.** 2020. *Macradenia* R.Br. (550–551 pp.). In: Pupulin, F. (ed.) Vanishing Beauty. Native Costa Rican Orchids, Vol. 2: Lacaena–Pteroglossa. Oberreifenberg, Alemania, Koeltz Botanical Books.
- Pupulin, F., & **Karremans, AP.** 2020. *Platystele* Schltr. (832–845 pp.). In: Pupulin, F. (ed.) Vanishing Beauty. Native Costa Rican Orchids, Vol. 2: Lacaena–Pteroglossa. Oberreifenberg, Alemania, Koeltz Botanical Books.
- Bogarín, D., **Karremans, AP**, & Pupulin, F.. 2020. *Polystachya* Hook (920–925 pp.). In: Pupulin, F. (ed.) Vanishing Beauty. Native Costa Rican Orchids, Vol. 2: Lacaena–Pteroglossa. Oberreifenberg, Alemania, Koeltz Botanical Books.
- Pupulin, F., & **Karremans, AP.** 2020. *Plectrophora* Focke (848–849 pp.). In: Pupulin, F. (ed.) Vanishing Beauty. Native Costa Rican Orchids, Vol. 2: Lacaena–Pteroglossa. Oberreifenberg, Alemania, Koeltz Botanical Books.
- Bogarín, D., Fernández, F., **Karremans, AP**, Pupulin, F., Smets, E. & Gravendeel, B. 2019. Floral anatomy and evolution of pollination syndromes in *Lepanthes* and close relatives. In: A. M. Pridgeon & A. R. Arosemena (Eds.), Proceedings of the 22nd World Orchid Conference, vol. 1 (pp. 396–410). Guayaquil, Ecuador: Asociación Ecuatoriana de Orquideología.
- Karremans, AP** & Díaz-Morales, M. 2019. The Pleurothallidinae: extremely high speciation driven by pollinator adaptation. In: A. M. Pridgeon & A. R. Arosemena (Eds.), Proceedings of the 22nd World Orchid Conference, vol. 1 (pp. 363–388). Guayaquil, Ecuador: Asociación Ecuatoriana de Orquideología.
- Pupulin, F., D. Bogarín & **A. P. Karremans.** 2019. How many species of Pleurothallidinae are there? Pp. 301–362 in: A. Pridgeon (ed.). Proceedings of the VI Scientific Conference on Andean Orchids. Guayaquil, 2017.

- Articles Published in SCI indexed journals (57):

Gil-Amaya, K. Fernández, M., Grimaldi, D., Blanco, M.A., Benavides-Acevedo, M., Osés, L. & **Karremans, A.P.** 2024. Pollination ecology of *Dracula erythrochaete* (Orchidaceae): Brood-site imitation or food deception? Botanical J. Linnean Society 20: boae054. <https://doi.org/10.1093/botlinnean/boae054>

- Karremans, A.P.** 2024. A Historical Review of the Artificial Pollination of *Vanilla planifolia*: The Importance of Collaborative Research in a Changing World. *Plants* 13: 3203. <https://doi.org/10.3390/plants13223203>
- Karremans, A.P.** 2024. *Platystele shanti*, a petite novel jewel from Costa Rica. *Phytotaxa* 672(2): 215–220. <https://doi.org/10.11646/phytotaxa.672.2.8>
- Rojas-Alvarado, G. & **Karremans, A.P.** 2024. A Typological and Morphological Analysis of the Pleurothallidinae (Orchidaceae) Inflorescences. *The Botanical Review* <https://doi.org/10.1007/s12229-024-09303-6>
- Wong, S. Kaur, J., Kumar, P., **Karremans, A.P.** & Sharma, J. 2024. Distinct orchid mycorrhizal fungal communities among co-occurring *Vanilla* species in Costa Rica: root substrate and population-based segregation. *Mycorrhiza* 34: 229–250 <https://doi.org/10.1007/s00572-024-01147-7>
- Ackerman, J.D., Phillips, R.D., Tremblay, R.L., **Karremans, A.P.**, Reiter, N., Peter, C.I., Bogarín, D., Pérez-Escobar, O.A., Liu, H., 2023. Beyond the various contrivances by which orchids are pollinated: global patterns in orchid pollination biology. *Botanical J. Linnean Society* 202(3): 295–324. <https://doi.org/10.1093/botlinnean/boac082>
- Gutiérrez Morales, N., Moreno, J. S., **Karremans, A.P.**, & Gil-Amaya, K. (2023). *Restrepia santanderensis* (Orchidaceae: Pleurothallidinae), a new species from the western slope of the eastern Andes in Colombia. *Phytotaxa* 598(4): 293–300.
- Jost, L., Yanez-Muñoz, M.H., Brito, J., Reyes-Puig, C., Reyes-Puig, J.P., Guayasamín, J.M., Ron, S.R., Quintana, C., Iturralde, G., Baquero, L., Monteros, M., Freire-Fierro, A., Fernández, D., Mendieta-Leiva, G., Morales, J.F., **Karremans, A.P.**, Vázquez-García, J.A., Salazar, G.A., Hágsater, E., Solano, R., Fernández-Concha, G.C. & Arana, M. 2023. Eponyms are important tools for biologists in the Global South. *Nat Ecol Evol* 7: 1164–1165 <https://doi.org/10.1038/s41559-023-02102-z>
- Karremans, A.P.** & Jiménez, E. 2023. *Pleurothallis pugio* (Orchidaceae), a new Pleurothallidinae from Costa Rica. *Phytotaxa* 599 (3): 150–154. <https://doi.org/10.11646/phytotaxa.599.3.2>
- Karremans, A.P.** & Pupulin, F. 2023. Proposal to conserve the name *Vanilla* (Orchidaceae) with a conserved type. *Taxon* 72(5): 1121–1122. <https://doi.org/10.1002/tax.13067>
- Karremans, A.P.**, Watteyn, C., Scaccabarozzi, D., Pérez-Escobar, O.A. & Bogarín, D. 2023. Evolution of seed dispersal modes in the Orchidaceae: has the *Vanilla* mystery been solved? *Horticulturae* 9: 1270. <https://doi.org/10.3390/horticulturae9121270>
- Karremans, A.P.**, Rojas-Alvarado, G. & Chinchilla, I.F. 2023. *Epidendrum scandens*: an unusual new orchid species endemic to the Cordillera de Talamanca in Costa Rica. *Phytotaxa* 626(4): 290–296. <https://doi.org/10.11646/phytotaxa.626.4.6>
- Watteyn, C., Reubens, B., Azofeifa Bolaños, J.B., Solano Campos, F., Pérez Silva, A., **Karremans, A.P.** & Muys, B. 2023. Cultivation potential of *Vanilla* crop wild relatives in two contrasting land use systems. *European Journal of Agronomy* 149: 126890 <https://doi.org/10.1016/j.eja.2023.126890>
- Watteyn, C., Scaccabarozzi, D., Muys, B., Reubens, B., Ackerman, J.D., Fernández Otárola, M., Guizar Amador, M.F., **Karremans, A.P.** 2023. Sweet as *Vanilla hartii*: Evidence for nectar rewards in *Vanilla* (Orchidaceae) flowers. *Flora* 303(2023): 152294. <https://doi.org/10.1016/j.flora.2023.152294>
- Karremans A.P.**, Bogarín D, Fernández Otárola M, Sharma J, Watteyn C, Warner J, Rodríguez Herrera B, Chinchilla IF, Carman E, Rojas Valerio E, Pillco Huaracaya R, Whitworth A. 2022. First evidence for multimodal animal seed dispersal in orchids. *Current Biology* 33(2): 364–371 <https://doi.org/10.1016/j.cub.2022.11.041>
- Pessoa, E. & **Karremans, A.P.** 2022. A New *Masdevallia* (Pleurothallidinae: Orchidaceae) from the White-Sand Forests of the Central Amazon, Brazil. *Systematic Botany* 47(1): 293–298.

- Chambers, A., Cibrián-Jaramillo, A., **Karremans, A.P.**, Moreno Martinez, D., Hernandez-Hernandez, J., Brym, M., Resende, M.F.R., Moloney, R., Sierra, S.N., Hasing, T. Alomia, Y.A. & Hu, Y. 2021. Genotyping-By-Sequencing diversity analysis of international Vanilla collections uncovers hidden diversity and enables plant improvement. *Plant Science* 311: 111019. <https://doi.org/10.1016/j.plantsci.2021.111019>.
- Karremans, A.P.**, Rojas-Alvarado, G., Bezerra-Silva, L.E., Flores-Rojas, J., Murillo,-Murillo, J.M., Romero-Ceciliano, M. & Segura-Bermúdez, O.A. 2021. Nomenclatural notes in the Pleurothallidinae (Orchidaceae): miscellaneous part II. *Phytotaxa* 496(2): 134-146.
- Ponert, J. Portilla Andrade, M., **Karremans, A.P.**, Chumová, Z. & Trávníček. 2021. *Phytotaxa* 500(2): 108-116.
- Rojas-Alvarado, G., Blanco, M.A. & **Karremans, A.P.** 2021. A taxonomic synopsis and morphological characterization of *Myoxanthus* (Orchidaceae: Pleurothallidinae). *Phytotaxa* 507(3): 211-258. <https://doi.org/10.11646/phytotaxa.507.3.1>
- Watteyn, C., Scaccabarozzi, D., Muys, B., van der Schueren, N., van Meerbeek, K., Guizar Amador, M.F., Ackerman, J.D., Cedeño Fonseca, M., Chinchilla, I.F, Reubens, B., Pillco Huarcaya, R. Cozzolino, S. & **Karremans, A.P.** 2021. Trick or Treat? Pollinator attraction in *Vanilla pompona* (Orchidaceae). *Biotropica* <https://doi.org/10.1111/btp.13034>
- Watteyn, C., Dejonghe, O., van Hoyweghen, K., Azofeifa Bolaños, J.B., **Karremans, A.P.**, Vranken, L., Reubens, B., Muys, B. & Maertens, M. 2021. Exploring farmer preferences towards innovations in the vanilla supply chain. *Journal of Cleaner Production* 330: 129831. <https://doi.org/10.1016/j.jclepro.2021.129831>
- Karremans, AP**, Salguero, G. Bogarín, D. Oses, L. & Cedeño-Fonseca, M. 2020. Illustrations and studies in Neotropical Orchidaceae: the *Specklinia brighamii* group (Pleurothallidinae) in Costa Rica. *Phytotaxa* 447(1): 016–030.
- Rincón-González, M., Sierra-Ariza, M.A. & Karremans, A.P. 2020. A new species of *Acianthera* (Orchidaceae, Pleurothallidinae) from the Cordillera Central of Colombia. *Phytotaxa* 474(1): 093-098.
- Rojas-Alvarado, G. & **Karremans, AP**. 2020. Revision of the Costa Rican species of *Myoxanthus* (Pleurothallidinae: Orchidaceae). *Phytotaxa* 448(1): 001-070.
- Pupulin, F. & **Karremans, AP**. 2020. A new and unusual species of *Dichaea* (Orchidaceae: Zygopetalinae) from Costa Rica. *Blumea* 65: 61-64.
- Watteyn, C., Fremout, T., **Karremans, AP**, Pillco Huarcaya, R., Azofeifa Bolaños, J.B., Reubens, B. & Muys, B. 2020. *Vanilla* distribution modeling for conservation and sustainable cultivation in a joint land sparing/sharing concept. *Ecosphere* 11(3):e03056. [10.1002/ecs2.3056](https://doi.org/10.1002/ecs2.3056)
- Bogarín, D., Pérez-Escobar, **Karremans, AP**, Fernández, M., Kruizinga, J., Pupulin, F., Smets, E. & Gravendeel, B. 2019. Phylogenetic comparative methods improve the selection of characters for generic delimitations in a hyperdiverse Neotropical orchid clade. *Scientific Reports* 9, 15098 (2019) [doi:10.1038/s41598-019-51360-0](https://doi.org/10.1038/s41598-019-51360-0)
- Karremans, AP**, Aguilar-Sandí, D., Artavia-Solís, M., Cedeño-Fonseca, M., Chinchilla, I. F., Gil, K., Rojas-Alvarado, G., Solano-Guindon, N. & Villegas-Murillo, J. (2019) Nomenclatural notes in the Pleurothallidinae (Orchidaceae): miscellaneous. *Phytotaxa* 406(5), 259–270.
- Thoerle, L. & **Karremans, AP**. 2019. The genus *Muscarella* (Orchidaceae): two new synonyms. *Phytotaxa* 395(1): 48-50.
- Bogarín, D, A. **Karremans, AP** & Fernández, M. 2018. Genus-level taxonomical changes in the *Lepanthes* affinity (Orchidaceae, Pleurothallidinae). *Phytotaxa* 340 (2): 128-136.
- Bogarín, D, Pérez-Escobar, OA, Groenenberg, D, Holland, SD, **Karremans, AP**, Lemmon, EM, Lemmon, AR, Pupulin, F, Smets, E, Gravendeel, B. 2018. Anchored hybrid enrichment generated

nuclear, plastid and mitochondrial T markers resolve the *Lepanthes horrida* (Orchidaceae: Pleurothallidinae) species complex. *Molecular Phylogenetics and Evolution* 129(2018): 27-47.

Cedeño-Fonseca, M., **Karremans, AP** & O. O. Ortiz. 2018. *Monstera limitaris* (Araceae) a new species from the border between Costa Rica and Panama. *Phytotaxa* 376(1): 037–042.

**Karremans, AP** & Jiménez, JE. 2018. *Pleurothallis hawkingii* and *Pleurothallis vide-vallis* (Orchidaceae; Epidendroideae), two new species from Cordillera de Guanacaste in Costa Rica. *Phytotaxa* 349(2): 185-191.

Reina-Rodríguez, G.A. & **Karremans, AP**. 2018. A new *Platystele* (Orchidaceae, Pleurothallidinae) from the Western mountains of Colombia. *Phytotaxa* 375(3): 235–242.

Collantes, B. & **Karremans, AP**. 2017. An eccentric new species of *Stelis* from Peru (Orchidaceae: Pleurothallidinae). *Brittonia* 69(2): 218–221.

Pérez-Escobar, OA, Chomicki, G, Condamine, FL, **Karremans, AP**, Bogarín, D, Matzke, NJ, Silvestro, D & Antonelli, A. 2017. Recent origin and rapid speciation of Neotropical orchids in the world's richest plant biodiversity hotspot. *New Phytologist* 215: 891–905.

Wilson, M, Frank, GS, Jost, L, Pridgeon, AM, Vieira-Uribe, S & **Karremans, AP**. 2017. Phylogenetic analysis of *Andinia* (Pleurothallidinae; Orchidaceae) and a systematic re-circumscription of the genus. *Phytotaxa* 295(2): 101–131.

Bogarín, D & **Karremans, AP**. 2016. A new *Brachionidium* (Orchidaceae: Pleurothallidinae) from the first botanical expedition to the Volcán Cacho Negro, Costa Rica. *Systematic Botany* 41(4): 919-923.

Chiron, GR, **Karremans, AP** & van den Berg, C. 2016. Nomenclatural notes in the Pleurothallidinae (Orchidaceae): *Phloeophila*. *Phytotaxa* 270: 56–62.

Damián, A & **Karremans, AP**. 2016. A New Species of *Stelis* (Orchidaceae: Pleurothallidinae) from Peru. *Systematic Botany* 41(2): 293-297.

Díaz-Morales, M & **Karremans, AP**. 2016. *Epidendra Nova Talamancana*. *Phytotaxa* 272(4): 248-256.

**Karremans, AP**, Albertazzi, FJ, Bakker, FT, Bogarín, D, Eurlings, MCM, Pridgeon, A, Pupulin, F & Gravendeel, B. 2016. Phylogenetic reassessment of *Specklinia* and its allied genera in the Pleurothallidinae (Orchidaceae). *Phytotaxa* 272(1): 1-36.

Bogarín, D & **Karremans, AP**. 2015. *Prosthechea tinukiana* sp. nov. (Orchidaceae: Laeliinae): an update of the *Prosthechea prismatocarpa* complex. *Turk. J. Bot.* 39: 499-505.

**Karremans, A.P.**, Bogarín, D, Pupulin, F, Luer, CA, & Gravendeel, B. 2015. The glandulous *Specklinia*: morphological convergence versus phylogenetic divergence. *Phytotaxa* 218(2): 101-127.

**Karremans, A.P.** & M. Rincón-González. 2015. Nomenclatural notes in the Pleurothallidinae (Orchidaceae): *Apoda-prorepentia*. *Phytotaxa* 238(2): 174-182.

**Karremans, A.P.** 2015. Nomenclatural notes in the Pleurothallidinae (Orchidaceae): *Stelis*. *Phytotaxa* 203(3): 292-296.

**Karremans, AP**, Bogarín, D & Gravendeel, B. 2015. *Specklinia lugduno-batavae* (Pleurothallidinae: Orchidaceae), a new species in the *S. digitalis* group. *Blumea* 59: 180-184.

**Karremans, A.P.**, Pupulin, F., Grimaldi, D., Beentjes, K.K., Butot, R., Fazzi, G.E., Kaspers, K., Kruizinga, J., Roessingh, P., Smets, E.F. & Gravendeel, B. 2015. Pollination of *Specklinia* by nectar-feeding *Drosophila*: the first reported case of a deceptive syndrome employing aggregation pheromones in Orchidaceae. *Annals of Botany* 116(3): 437-455.

**Karremans, A.P.**, Pupulin, F., and Gravendeel, B. 2015. *Specklinia dunstervillei*, a new species long confused with *Specklinia endotrachys* (Orchidaceae: Pleurothallidinae). *PLoS One* 10(7): e0131971

Rodríguez-Martínez, L., Rincón-Useche, C & **Karremans, AP**. 2015. A New *Pleurothallis* from Colombia, with a Note on *Ancipitia* and *Colombiana* (Orchidaceae: Pleurothallidinae). *Systematic Botany* 40(1): 75-78.

Bogarín, D, **Karremans, AP**, Rincón, R & Gravendeel B. 2013. A new *Specklinia* (Orchidaceae: Pleurothallidinae) from Costa Rica and Panama. *Phytotaxa* 115(2): 31-41.

**Karremans, AP** & Bogarín, D. 2013. Three New Species of *Dracontia* (Pleurothallidinae, Orchidaceae) from Costa Rica. *Systematic Botany* 38(2): 307-315.

**Karremans, AP**, Bakker, FT, Pupulin, F, Solano-Gomez, R & Smulders, MJM. 2013. Phylogenetics of *Stelis* and closely related genera (Orchidaceae: Pleurothallidinae). *Plant Syst. Evol.* 29(1): 69-86.

Pupulin, F, **Karremans, AP** & Gravendeel, B. 2012. A reconsideration of the Empusellous species of *Specklinia* (Orchidaceae: Pleurothallidinae) in Costa Rica. *Phytotaxa* 63: 1-20.

**Karremans, AP**. 2009. *Prosthechea madrese*, a reconsideration of *Epidendrum madrese* Schltr. (Orchidaceae: Laeliinae). *Acta Botánica Mexicana* 88: 47-57.

- Articles in peer reviewed journals, not in SCI (44):

Belfort-Oconitrillo, N., Salguero, G., Oses, L., Gil-Amaya, K., Rojas-Alvarado, G., Chinchilla, I.F., Díaz-Morales, M., Pupulin, F., Bogarín, D. & **Karremans, A.P.** 2024. New species and records of Orchidaceae from Costa Rica. IV. *Lankesteriana* 23(4): 141-192. doi: <http://dx.doi.org/10.15517/lank.v24i2.60686>

Pupulin, F. & **Karremans, A.P.** 2024. A rare and extraordinary new species of *Trichopilia* from Costa Rica. *Harvard Papers in Botany* 29(2): 301–306. <https://doi.org/10.3100/hpib.v29iss2.2024.n10>

**Karremans, A.P.** 2023. *Karma*, a new genus in the Pleurothallidinae (Orchidaceae). *Harvard Papers in Botany* 28(1): 61-69. <https://doi.org/10.3100/hpib.v28iss1.2023.n7>

**Karremans, A.P.**, Chinchilla, I.F. & Rojas-Alvarado, G. 2023. Studies on Costa Rican Vanilloideae: The return of *Cleisthes rosea* and a reaffirmation of *Epistephium ellipticum*. *Lankesteriana* 23(3): 613-622. doi: <http://dx.doi.org/10.15517/lank.v23i3.58136>

**Karremans, A.P.**, Moreno, J.S., Gil-Amaya, K., Guitérrez Morales, N., Espinosa, F., Mesa, S., Restrepo, E., Rincón-González, M., Serna, A., Sierra-Ariza, M. & Vieira-Urbe, S. 2023. Colombian Orchidaceae: A catalogue of the Pleurothallidinae. *Lankesteriana* 23(2): 181-400. doi: <http://dx.doi.org/10.15517/lank.v23i2.56158>

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**Karremans, AP**, van Heuven, B, Langelaan, R & Gravendeel, B. 2016. Documentation of floral secretory glands in Pleurothallidinae (Orchidaceae) using Scanning Electron Microscopy (SEM). *Bio-protocol* 6(22): e2021. DOI: 10.21769/BioProtoc.2021

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- Bogarín, D & **Karremans, AP.** 2013. *Trichocentrum pupulinianum* (Orchidaceae). *Lindleyana in Orchids (West Palm Beach)* 82(2): 106–110.
- Bogarín, D, Pupulin, F & **Karremans AP.** 2012. Three New *Lepanthes* (Orchidaceae: Pleurothallidinae) from South-East Costa Rica. *Lankesteriana* 12(2): 107-114.
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- Karremans, AP & Muñoz, M.** 2011. *Pleurothallis silvae-pacis* (Orchidaceae: Pleurothallidinae): a new species found at the Bosque de Paz Biological Reserve in Costa Rica. *Orch. Rev.* 121: 155-159.
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- Pupulin, F & **Karremans, AP.** 2010. *Crossoglossa sotoana* (Orchidaceae: Malaxideae), a new species honoring the late Mexican botanist, Miguel Ángel Soto Arenas. *Lankesteriana* 9(3): 443-446.
- Pupulin, F & **Karremans, AP.** 2010. Two new species and a new record of *Epidendrum* (Orchidaceae: Laeliinae) from Costa Rica. *Selbyana* 30(2): 196.
- Bogarín, D, **Karremans, AP & Pupulin, F.** 2008. New species and records of Orchidaceae from Costa Rica. *Lankesteriana* 8(2): 53-74.
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- Pupulin, F, **Karremans, AP & Merino, G.** 2008. *Trichocentrum loyolicum*, a new species in the genus *Trichocentrum s.s.* *Harvard Pap. Bot.* 13(2): 219-222.
- Pupulin, F & **Karremans, AP.** 2007. *Prosthechea ionophlebia* and *P. chacaoensis* two different species, but which is which? *Lindleyana in Orchids* 76(3): 202-208.
- Articles in other journals (17):
- Chinchilla, I.F., **Karremans, A.P.** & Blanco, M. 2023. *Malaxis dressleriana*, a new orchid species honoring a botanist for all seasons, Robert Louis Dressler. *Orchids (Bull. Amer. Orch. Soc.)* 92(8): 608–613.
- Karremans, AP & Strigari, S.** 2021. The New Refugium Botanicum. *Vanilla costaricensis*. *Orchids (Bull. Amer. Orch. Soc.)* 90(10): 748–750.
- Pupulin, F., Bogarín, D. & **Karremans, AP.** 2020. Una nueva especie de *Cischweinfia* (Orchidaceae: Oncidiinae) de Costa Rica, con hábito y flores muy pequeñas. *Orquideología* 37(1): 4-26.
- Vieira-Urbe, S. & **Karremans, AP.** 2018. La *Specklinia* (Orchidaceae) con señuelo, una asombrosa nueva especie de los Andes occidentales en Colombia. *Orquideología* 32(2): 164–168.

Pupulin, F, **Karremans, AP** & Strigari, S. 2017. The New Refugium Botanicum. *Ida (Sudamerlycaste) andreettae*. *Orchids (Bull. Amer. Orch. Soc.)* 86(7): 496–498.

Bonilla Morales, MM, Aguirre Morales, AC, Mosquera Hernández, JJ & **Karremans, AP**. 2016. Distribution of *Platystele sylvestrei* (Orchidaceae: Pleurothallidinae): first records for Colombia. *Rev. Biodivers. Neotrop.* 6(2): 131-134.

Díaz-Morales, M & **Karremans, AP**. 2016. The New Refugium Botanicum. *Specklinia endotrachys*. *Orchids* 85(5): 332-334.

**Karremans, AP** & Vieira-Uribe, S. 2016. *Andinia lueri*, una nueva especie confundida con *A. dactyla* (Orchidaceae: Pleurothallidinae). *Orquideología XXXIII*: 112-122.

Bogarín, D., **Karremans, A.P.** & Muñoz, M. 2015. *Brachionium kirbyi*, a new species honoring the founder of the “Bosque de Paz” Orchid Project in Costa Rica. *Die Orchidee* 66(5): 404-409.

Dressler, R.L. & **Karremans, A.P.** 2015. *Sobralia rogersiana*, un monstruo maravilloso. *Orquideología* 32(1): 30-37.

**Karremans, AP**. 2015. Visualizing Pleurothallids: *Lankesteriana. Lindleyana* in *Orchids (Bull. Amer. Orch. Soc.)* 84(5): 304-312.

Pupulin, F., **AP Karremans** & S. Strigari. 2013. Taxonomie in Aquarell: die *Specklinia-endotrachys*-Gruppe, Teil 1. Taxonomy in watercolor: the *Specklinia endotrachys* group, part 1. *Die Orchidee (Hamburg)* 64(5): 392-399.

Pupulin, F., **AP Karremans** & S. Strigari. 2013. Taxonomie in Aquarell: die *Specklinia-endotrachys*-Gruppe, Teil 2. Taxonomy in watercolor: the *Specklinia endotrachys* group, part 2. *Die Orchidee (Hamburg)* 64(6): 475-485.

Fernández, M, **Karremans, AP** & Pupulin, F. 2011. Orchid Pollinaria up close and personal. *Orchids* 80: 362-363,

**Karremans, AP**. 2011. *Dracontia*, the little-known dragon orchids. *Orchids* 80(9): 560-566.

**Karremans, AP** & Bogarín, D. 2011. *Pleurothallis adventurae* (Orchidaceae: Pleurothallidinae), eine neue art aus einer unerforschten region in Costa Rica. *Orchideen J.* 18(3): 111-114.

Bogarín, D & **Karremans, AP**. 2010. A new *Platystele* (Orchidaceae: Pleurothallidinae) from Central Costa Rica / Un nuevo *Platystele* (Orchidaceae: Pleurothallidinae) de la parte central de Costa Rica. *Orquideología* 27(2): 208-220.

#### Web Pages:

<https://www.adamkarremans.com/>

<http://www.epidendra.com/>

<http://www.lankesteriana.org/>

<http://www.speciesorchidacearum.org/>

## Research Projects

#### At the University of Costa Rica (as head researcher only):

- 814-C4-076 Filogenia de *Prosthechea* con énfasis en el complejo *P. vespa*. 2024-2026.
- 814-C4-225 ORCHIDBIOM: relación de las interacciones entre plantas y polinizadores y la comunidad de microbiomas asociados a las flores en orquídeas melitofilas y ornitofilas. 2024-2029.
- 814-C3-464 SMART Vanilla Network - Stress Management and Resilient Tropical Vanilla. 2023-2025.

- 814-C2-601 Evolución y conservación de las estrechas redes ecológicas entre orquídeas y abejas: integración de la información en repositorios biológicos como herramienta diagnóstica para la identificación de orquídeas polinizadas por himenópteros. 2022-2024.
- 814-C2-048 Importancia de la polinización por moscas en Orchidaceae: biología reproductiva y ecología de polinización de *Dracula*, *Masdevallia* y grupos afines en Pleurothallidinae. 2022-2026.
- 814-C0-049 Diversidad genética y estructura clonal de las poblaciones silvestres de *Vanilla* en Costa Rica. 2020-2024.
- 814-B8-257 Uso del código de barras genético para la identificación de especies de Orchidaceae de Costa Rica. 2018-2022.
- 814-B8-256 Técnicas moleculares para resolver la sistemática de los géneros *Myoxanthus* y *Octomeria* (Orchidaceae) en Costa Rica. 2018-2022.
- 814-B5-A81 Estudios en polinización de Pleurothallidinae (Orchidaceae). 2016 to 2020.
- 814-B5-115 La flora de orquídeas del Monumento Nacional Guayabo, Turrialba, Costa Rica. 2015 to 2019.
- 814-B3-075 Taxonomía, filogenia molecular, aislamiento reproductivo y diferenciación de nichos de *Specklinia endotrachys*. 2013 to 2017.
- 814-B1-239 Filogenia molecular de las especies de Orchidaceae endémicas de Costa Rica. 2012-2015.

<b>Conference Attendance</b>
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- 1st International Conference on Neotropical Orchidology (ICNO). San José, Costa Rica. May 2003. Passive participation.
- 3rd International Orchid Conservation Congress (IOCC) ; 2nd International Conference on Neotropical Orchidology (ICNO). San José, Costa Rica. March 2007. Passive participation.
- 2nd Scientific Conference on Andean Orchids (IISCAO). Loja, Ecuador. November 2007. Passive participation.
- 1rst Scientific Conference on Orchid Conservation at the Machu Picchu Sanctuary. Machu Picchu, Perú. March 2011. Active participation.
- 4th Scientific Conference on Andean Orchids (IISCAO). Guayaquil, Ecuador. November 2012. Active participation.
- 31st New Phytologist Symposium. Orchid symbioses: models for evolutionary ecology. Calabria, Italy. Mayo 2013. Active participation.
- V Monocots Symposium: Orchid Relationships from species to subfamily. The Bronx, New York. Julio 2013. Active participation.
- Séptimo Congreso Colombiano de Botánica. Ibagué, Colombia. August 2013. Active participation.
- NERN Netherlands Annual Ecology Meeting 2014 (NAEM). Lunteren, The Netherlands. February 2014. Active participation.
- Primera Exposición Nacional de Orquídeas y Encuentro Académico: Bogotá Humana y florecida. Bogotá, Colombia. November 2014. Active participation.
- Octavo Congreso Colombiano de Botánica. Manizales, Colombia. August 2015. Active participation.
- 5th Scientific Conference on Andean Orchids (IISCAO). Cali, Colombia. November 2015. Active participation.
- XIX Internation Botanical Congress (IBC). Shenzhen, China. August 2017. Active participation.
- 22nd World Orchid Conference (WOC). Guayaquil, Ecuador. November 2017. Active participation.
- VI Monocots Symposium. Natal, Brasil. October 2018. Active participation.
- 7th International Orchid Conservation Congress (IOCC). Kew, Londres, Reino Unido. May 2019. Active participation.
- 6th Scientific Conference on Andean Orchids (IISCAO). Medellín, Colombia. August 2019. Active participation.

- II Congreso Internacional de Orquídeas, Biodiversidad y Educación. July 2020. Active participation.
- VII MONOCOTS Conference. San José, Costa Rica. March 2024. Active participation.
- 5th International Vanilla Conference (IVC5). Saint-Pierre, La Reunión. June 2024. Active participation.
- XX International Botanical Congress (IBC2014). Madrid, España. July 2024. Active participation.
- XII Congreso Colombiano de Botánica, Popayán, Colombia. November 2024. Active participation.

### Organization of Scientific Events

- Minisymposium: Animal-plant interactions: “polinización por insectos”. Universidad de Costa Rica, San José, Costa Rica. April 2018. Organizing committee.
- I Congreso Científico de Biodiversidad y Conservación (ConBio), 16-19 September 2021, San José, Costa Rica [Zoom]. Organizing committee.
- Monocots VII: To be held in Costa Rica in March 2024. President of the Organizing Committee.

### Teaching

#### Courses:

- *Curso de Polinización en Orquídeas: Técnicas de Estudio*. XII Congreso Colombiano de Botánica, Popayán, Colombia (2 - 3 November 2024).
- *Use and interpretation of the code of nomenclature for algae, fungi and plants*. Course for BSc. and MSc. students at the University of Costa Rica. 2018-II, 2020-II, 2022-II.
- *Plant Biosystematics*. University of Costa Rica. 2018-I.
- *General Biology*. University of Costa Rica. 2018-I.
- *Orchidology* Course for BSc. and MSc. students at the University of Costa Rica. 2015-I, 2016-I, 2017-I, 2019-I.
- *Techniques for documentation and scientific illustration of Orchidaceae*. International Workshop during the 5th Scientific Conference on Andean Orchids, in Cali, Colombia (November 2015).
- Invited lecturer for the *Research Methods* course given by Sergio González for BSc. and MSc. students at the University of Costa Rica (2015).

#### Supervision:

##### Postdoc

- Charlotte Watteyn. Climate change resilient *Vanilla* (KU Leuven, Belgium). 2023-2025. Thesis Co-supervisor.

##### PhD.

- Charlotte Watteyn. Costa Rican *Vanilla*. KU Leuven, Belgium. 2017-2022. Thesis Co-supervisor.
- Diana Molina-Ozuna (ECOSUR, México). Variabilidad del aroma floral en redes de interacción orquídea-Euglossini: un enfoque filogenético en México y Costa Rica. 2024 al presente. Thesis Co-supervisor.
- Alexander Damián (University of Wisconsin-Madison). 2023 al present. Disentangling the Evolutionary history of the world’s most popular crop: Systematics and Pollination Biology of New World Vanilla. Thesis Advisor.
- Shan Wong. Texas Tech. 2020 to present. Thesis Advisor.

##### MSc.

- Francisco Vargas Acuña (UCR-Biology School). 2021 to present. Thesis supervisor.
- Cristel Bermúdez Otarola (UCR, Escuela de Biología). 2024 al presente. Thesis Advisor.

- Diana Molina-Ozuna (ECOSUR, México). Monitoreo y aprovechamiento de recursos vegetales de *Euglossa viridissima* Friese 1899 (Apidae; Euglossini) en diversos hábitats del Soconusco, Chiapas. 2021 to present. Thesis Advisor.
- Nicolás Rengifo Alonso (UCR, Escuela de Biología). Fenología de abejas Euglossinas y su interacción con las orquídeas en un bosque húmedo tropical de Costa Rica. 2021 al presente. Thesis Advisor.
- Haiby Bedolla (UCR, Gestión Ambiental y Ecoturismo). Fortalecimiento de la gestión turística del Jardín Botánico Lankester en Cartago, Costa Rica. 2020 al presente. Thesis Advisor.
- Alejandra Serna (UCR-Biology School). Genética poblacional de *Vanilla odorata* y *V. pompona* en el Pacífico Sur de Costa Rica. 2021 to present. Thesis Supervisor.
- Carlos Cervantes (UCR-Biology School). Genética poblacional de *Vanilla planifolia* en el Caribe de Costa Rica. 2021-2023. Thesis Supervisor.
- Karen Gil (UCR-Biology School). Interacciones insecto - planta en el mecanismo de polinización del género *Dracula* (Orchidaceae). 2017-2022. Thesis Supervisor.
- Isler Chinchilla (UCR-Biology School). Systematics and pollination of *Malaxis* (Orchidaceae). University of Costa Rica. 2015-2020. Thesis Advisor.
- Gustavo Rojas (UCR-Biology School). Systematics of *Myoxanthus* (Pleurothallidinae: Orchidaceae). University of Costa Rica. 2016-2020. Thesis Supervisor.
- Denyer Sánchez (UCR-Biology School). Pollination in *Masdevallia* (Orchidaceae). University of Costa Rica. 2015-2018. Thesis Supervisor.

#### BSc.

- Mónica Alfaro (UCR-Biology School). Propuesta de Interpretación Ambiental para el Jardín Botánico Lankester dirigida hacia la conservación de la biodiversidad de plantas en Costa Rica y su relación con los Objetivos de Desarrollo Sostenible de las Naciones Unidas. 2019 to present. Thesis Advisor.
- Noelia Belfort Oconitrillo (UCR-Biology School). Mecanismo de polinización y estrategia reproductiva de *Masdevallia striatella* (Orchidaceae: Pleurothallidinae) en un bosque nuboso de Costa Rica. University of Costa Rica. 2020-2023. Thesis Supervisor.
- Lizbeth Oses (UCR-Biology School). Systematics and phylogenetics of *Masdevallia* (Orchidaceae). University of Costa Rica. 2014-2017. Thesis Supervisor.
- Melissa Díaz Morales (UCR-Biology School). Pollination of *Phragmipedium* (Orchidaceae). University of Costa Rica. 2015-2017. Thesis Advisor.

<b>Editorial Work</b>
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- SPECIES ORCHIDACEARUM. **Editor-in-Chief**. 2017 to present. Published by Lankester Botanical Garden, University of Costa Rica. <http://speciesorchidacearum.org/>
- PHYTOTAXA. **Section Editor**. From August 2018 to June 2022. <http://www.mapress.com/j/pt/>
- LANKESTERIANA, international journal on orchidology. **Managing Editor**. Published by Lankester Botanical Garden, University of Costa Rica. 2011-2018 <http://www.lankesteriana.org>
- ICONES ORCHIDACEARUM, MEXICO. **Editor**. Published by AMO, Mexico. 2011 to present.

<b>Journal Review</b>
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- ACTA AGRONÓMICA; ACTA BOTANICA GALICA; ACTA BOTANICA MEXICANA; BLUMEA; BOTANICAL JOURNAL OF THE LINNEAN SOCIETY; BRITTONIA; ICONES ORCHIDACEARUM, MEXICO; LANKESTERIANA; NORDIC JOURNAL OF BOTANY; PEERJ; PESQUISA AGROPECUÁRIA TROPICAL; PHYTOTAXA; PLANT BIOLOGY; PLANT SYSTEMATICS AND EVOLUTION; PLOSONE; PROTOPLASMA; REVISTA DE BIOLOGÍA TROPICAL; REVISTA PERUANA DE BIOLOGÍA; TAXON; TURKISH JOURNAL OF BOTANY; WEBBIA; AMERICAN JOURNAL OF BOTANY; PLANT BIOLOGY; REVISTA PERUANA DE BIOLOGÍA