

## CURRICULUM VITAE

**Febrero, 2021**

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**Lugar y fecha de nacimiento:** Buenos Aires, Argentina.  
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### ÁREAS DE INTERES

Interacciones mutualistas planta-animal . Ecología reproductiva de plantas . Ecología de comunidades . Biodiversidad . Conservación

### ESTUDIOS PROFESIONALES

Universidad de Buenos Aires, Facultad de Ciencias Exactas y Naturales. Marzo 1980 - diciembre 1985. Título: Licenciado en Ciencias Biológicas.

Universidad de Massachusetts en Amherst, Departamento de Ciencias Forestales y Manejo de Fauna Silvestre. Setiembre 1987 - setiembre 1992 (Programa doctoral). Título: Ph.D.

### POSICIONES ACTUALES

Investigador Superior del CONICET. INIBIOMA- Universidad Nacional del Comahue. En la carrera del investigador desde enero 1995 hasta el presente.

Profesor Titular. Departamento de Ecología, Centro Regional Bariloche, Universidad Nacional del Comahue. Desde junio 2016 hasta el presente.

Vice-director del Instituto de Biodiversidad y Medioambiente (INIBIOMA-CONICET). Marzo 2018 hasta el presente.

### SUBSIDIOS RECIBIDOS

Sigma Xi (1988), International Foundation for Science (1990, 1993, 1995), Universidad Nacional del Comahue (1994, 1996, 1997, 2001), CONICET (1997, 1999, 2005), National Geographic Society (1998, 2002, 2019), Fondo de Ciencia y Técnica (1998, 1999, 2008, 2016, 2018), Wildlife Conservation Society (2000), Fundación Antorchas (2000, 2002), CONICET (2005, 2008), Newton Fund (2018, 2019).

## DIRECCION DE TESIS

14 Tesinas de Licenciatura + 14 Tesis Doctorales (incluyendo dirigidas y co-dirigidas)

## PUBLICACIONES

143 artículos científicos

1 libro editado

13 capítulos de libros

15 artículos de divulgación

4 informes técnicos de impacto internacional

4 informes técnicos de impacto nacional

### Artículos científicos publicados en los últimos cinco años:

1. Zattara, E. & **M.A. Aizen**. 2021. Worldwide occurrence records suggest a global decline in bee species richness. *One Earth* 4: 114-123.
2. de Groot, G.S., **M.A. Aizen**, A. Sáez, & C.L. Morales. 2021. Large-scale monoculture reduces honey yield: The case of soybean expansion in Argentina. *Agriculture, Ecosystems & Environment* 306: 107203.
3. Gleiser, G., N. Leme da Cunha, N., A. Sáez, A., & **M.A. Aizen** (2021). Ecological correlates of crop yield growth and interannual yield variation at a global scale. *Web Ecology* 21: 15-43.
4. Vanbergen A.J, **M.A. Aizen**, S. Cordeau, L.A. Garibaldi, M.P. Garratt, A. Kovács-Hostyánszki, L. Lecuyer L, H.T. Ngo, S.G. Potts, J. Settele, & E. Skrimizea. 2020. Transformation of agricultural landscapes in the Anthropocene: Nature's contributions to people, agriculture and food security. *Advances in Ecological Research* 63: 193-253.
5. **Aizen, M.A.**, M.P. Arbetman, N.P. Chacoff, V.R. Chalcoff, P. Feinsinger, L.A. Garibaldi, L.D. Harder, C.L. Morales, A. Sáez, & A.J. Vanbergen. 2020. Invasive bees and their impact on agriculture. *Advances in Ecological Research* 63: 49-92.
6. Gavini, S., C. Ezcurra, & **M.A. Aizen**. 2020. Patch-level facilitation fosters high-Andean plant diversity at regional scales. *Journal of Vegetation Science* 31: 1133-1143. (doi: 10.1111/jvs.12922).
7. Sáez, A., **M.A. Aizen**, S. Medici, S., M. Viel, E. Villalobos, & P. Negri. 2020. Bees increase crop yield in an alleged pollinator-independent almond variety. *Scientific Reports* 10: 3177. (doi: 10.1038/s41598-020-59995-0).
8. Garibaldi, L.A., A. Sáez, **M.A. Aizen**, T. Fijen, & i. Bartomeus. 2020. Crop pollination management needs flower visitor monitoring and target values. *Journal of Applied Ecology* (publicado online, doi: 10.1111/1365-2664.13574).
9. Pérez-Méndez, N., G.K.Andersson, F. Requier, J. Hipólito, **M.A. Aizen**, C.L. Morales,, N, García, G.P. Gennari, & L.A. Garibaldi. 2020. The economic cost of losing native pollinator species for orchard production. *Journal of Applied Ecology* (publicado online, doi: 10.1111/1365-2664.13561).
10. Gavini, S., G.M. Suárez, C. Ezcurra, & **M.A. Aizen**. 2019. Facilitation of vascular plants by cushion mosses in high-Andean communities. *Alpine Botany* 129: 137-148. (doi: 10.1007/s00035-019-00222-6).

11. **Aizen, M.A.**, S. Aguiar, J.C. Biesmeijer, L.A. Garibaldi, D.W. Inouye, C. Jung, D.J. Martins, R. Medel, C.L. Morales, H. Ngo, A. Pauw, R.J. Paxton, A. Sáez, & C.L. Seymour 2019. Global agricultural productivity is threatened by increasing pollinator dependence without a parallel increase in crop diversification. *Global Change Biology* 25: 3516-3527. (doi: 10.1111/gcb.14736).
12. Harder, L.D., M. Strelin, I. Clocher, M. Kulbaba, & **M.A. Aizen**. 2019. The dynamic mosaic phenotypes of flowering plants. *New Phytologist* 224: 1021-1034. (doi: 10.1111/nph.15916).
13. Coulin C., **M.A. Aizen M.A.**, & L.A. Garibaldi. 2019. Contrasting responses of plants and pollinators to woodland disturbance. *Austral Ecology* 44: 1040-1051. (doi: 10.1111/aec.12771).
14. Gavini, S., C. Ezcurra, & **M.A. Aizen**. 2019. Plant–plant interactions promote alpine diversification. *Evolutionary Ecology* 33: 195–209. (doi: 10.1007/s10682-019-09972-5).
15. Teixido, A.L. & **M.A. Aizen**. 2019. Reproductive assurance weakens pollinator-mediated selection on flower size in an annual mixed-mating species. *Annals of Botany* 123: 1067-1077. (doi: 10.1093/aob/mcz014).
16. Sáez, A., P. Negri, M. Viel, & **M.A. Aizen**. 2019. Pollination efficiency of artificial and bee pollination practices in kiwifruit. *Scientia Horticulturae* 246: 1017-1021.
17. Gleiser, G., K.L. Speziale, S.A. Lambertucci, F. Hiraldo, J.L. Tella, & **M.A. Aizen**. 2019. Uncoupled evolution of male and female cone sizes in an ancient conifer lineage. *International Journal of Plant Sciences* 180: 72-80.
18. **Aizen, M.A.**, C. Smith-Ramírez, C.L. Morales, L. Vieli, A. Sáez, R.M. Barahona-Segovia, M.P. Arbetman, J. Montalva, L.A. Garibaldi, D.W. Inouye, & L. D. Harder. 2019. Coordinated global species-importation policies are needed to reduce serious invasions globally: the case of alien bumble bees in South America. *Journal of Applied Ecology* 56: 100–106. (GS 11)
19. Strelin, M.M. & **M.A. Aizen**. 2018. The interplay between ovule number, pollination and resources as determinants of seed set in a modular plant. *PeerJ* 6, e5384.
20. Cavallero L., C.L. Morales, A. Montero-Castaño , J.H. Gowda , & **M.A. Aizen**. 2018. Scale-dependent effects of conspecific flower availability on pollination quantity and quality in an invasive shrub. *Oecologia* 188: 501-513. (GS 1)
21. Nuismer, S.L., B. Week, & **M.A. Aizen**. 2018. Coevolution slows the disassembly of mutualistic networks. *American Naturalist* 192: 490-502. (GS 1)
22. Agüero, J.I., O. Rollin, J.P. Torretta, **M.A. Aizen**, F. Requier, & L.A. Garibaldi. 2018. Impactos de la abeja melífera sobre plantas y abejas silvestres en hábitats naturales. *Ecosistemas* 27: 60-69. (GS 4)
23. Sáez, A., J.M. Morales, C.L. Morales, L.D. Harder & **M.A. Aizen**. 2018. The costs and benefits of pollinator dependence: empirically-based simulations predict raspberry fruit quality. *Ecological Applications* 28: 1215-1222.
24. Speziale, K.L., S.A. Lambertucci, G. Gleiser, J.L. Tella, F. Hiraldo, & **M.A. Aizen**. 2018. An overlooked plant-parakeet mutualism counteracts human overharvesting on an endangered tree. *Royal Society Open Science* 5: 171456. (doi: 10.1098/rsos.171456). (GS 2)

25. Vanbergen, A.J., A. Espíndola, & **M.A. Aizen**. 2018. Risks to pollinators and pollination from invasive alien species. *Nature Ecology & Evolution* 2: 16–25. (GS 7)
26. Gleiser, G., I. Chybicki, S. González-Martínez, & **M.A. Aizen**. 2018. Phenological match drives pollen-mediated gene flow in a temporally dimorphic tree. *Plant Biology* 20: 93–100. (doi:10.1111/plb.12651).
27. Arbetman, M.P., G. Gleiser, C. L. Morales, P. Williams, & **M.A. Aizen**. 2017. Global decline of bumblebees is phylogenetically structured and inversely related to species' range size and pathogen incidence. *Proceedings of the Royal Society B* 284: 20170204. (doi: 10.1098/rspb.2017.0204). (GS 13)
28. Gleiser, G., S.A. Lambertucci, K.L. Speziale, F. Hiraldo, J.L. Tella, & **M.A. Aizen**. 2017. The southernmost parakeet might be enhancing pollination of a dioecious ancient conifer. *Ecology* 98: 2969-2971. (GS 3)
29. Geslin, B., **M.A. Aizen**, N. Garcia, A.J. Pereira, B. E. Vaissière, & L.A. Garibaldi. 2017. The impact of honey bee colony quality on crop yield and farmers' profit in apples and pears. *Agriculture, Ecosystems & Environment* 248:153-161 (doi:10.1016/j.agee.2017.07.035). (GS 7)
30. Amico, G.C., Y. Sasal, R. Vidal-Russell, J.M, Morales, & **M.A. Aizen**. 2017. Consequences of disperser behaviour for seedling establishment of a mistletoe species. *Austral Ecology* 42: 900–907. (doi: 10.1111/aec.12517).
31. Garibaldi, L.A., S. Aguiar, **M.A. Aizen**, C.L. Morales, & A. Sáez. 2017. ¿Diversidad o dominancia en la producción de alimentos? El caso de los polinizadores. *Ecología Austral* 27: 340-347. (GS 1).
32. Willcox, B.K., **M.A. Aizen**, S.A. Cunningham, M.M. Mayfield, & R. Rader. 2017. Deconstructing pollinator community effectiveness. *Current Opinion in Insect Science* (doi: 10.1016/j.cois.2017.05.012). (GS 6)
33. Chalcoff, V.R., G. Gleiser, C. Ezcurra, & **M.A. Aizen**. 2017. Pollinator type and secondarily climate are related to nectar sugar composition across the angiosperms *Evolutionary Ecology* 31: 585–602. (GS 2)
34. Sáez A., C.L. Morales, L.A. Garibaldi, & **M.A. Aizen**. 2017. Invasive bumble bees reduce nectar availability for honey bees by robbing raspberry flower buds. *Basic and Applied Ecology* 19: 26-35. (GS 7)
35. Potts, S.G., V.Imperatriz-Fonseca, H.T. Ngo, **M.A. Aizen**, J.C. Biesmeijer, T.D. Breeze, L.V. Dicks, L.A. Garibaldi, R. Hill, J. Settele, & A.J. Vanbergen. 2016. Safeguarding pollinators and their values to human well-being. *Nature* 540: 220–229. doi: 10.1038/nature20588. (GS 201)
36. Bartomeus, I., D. Gravel, J.M. Tylianakis, **M.A. Aizen**, I.A. Dickie, & M. Bernard-Verdier. 2016. A common framework for identifying linkage rules across different types of interactions. *Functional Ecology* 30: 1894-1903. (GS 65)
37. De Palma, A., S. Abrahamczyk, **M.A. Aizen**, *et al.* 2016. Predicting bee community responses to land-use changes: Effects of geographic and taxonomic biases. *Scientific Reports* 6:31153. doi:10.1038/srep31153. (GS 30)
38. Tur, C., A. Sáez, A. Traveset, & **M.A. Aizen**. 2016. Evaluating the effects of pollinator-mediated interactions using pollen transfer networks: evidence of widespread facilitation in south Andean plant communities. *Ecology Letters* 19: 576-586. (GS 21)

39. Harder, L.D., **M.A. Aizen**, & S.A. Richards. 2016. The population ecology of male gametophytes: the link between pollination and seed production. *Ecology Letters* 19: 497-509. (GS 10)
40. Harder, L.D., **M.A. Aizen**, S.A. Richards, M.A. Joseph, & J.W. Busch. 2015. Diverse ecological relations of male gametophyte populations in stylar environments. *American Journal of Botany* 103: 484-497. (GS 16)
41. Chalcoff, V. & **M.A. Aizen**. 2016. Pollination unpredictability and ovule number in a South-Andean Proteaceae along a rainfall gradient. *Australian Journal of Botany* 64: 8-14. (GS 3)
42. **Aizen, M.A.**, G. Gleiser, M. Sabatino, L.J. Gilarranz, J. Bascompte, & M. Verdú. 2016. The phylogenetic structure of plant-pollinator networks increases with habitat size and isolation. *Ecology Letters* 19: 29-36. (GS 17)
43. Garibaldi, L.A., I. Bartomeus, R. Bommarco, A. Klein, S. Cunningham, **M.A. Aizen**, V. Boreux, M. Garratt, L. Carvalheiro, C. Kremen, C. Morales, C. Schüepp, N. Chacoff, B. Freitas, V. Gagic, A. Holzschuh, B. Klatt, K. Krewenka, S. Krishnan, & M. Mayfield. 2015. Trait matching of flower visitors and crops predicts fruit set better than trait diversity. *Journal of Applied Ecology* 52: 1436–1444. (GS 59)
44. González-Varo, J., R. Albaladejo, **M.A. Aizen**, J. Arroyo & A. Aparicio. 2015. Extinction debt of a common shrub in a fragmented landscape. *Journal of Applied Ecology* 52: 580–589. (GS 7)
45. Cavallero, L., D.R. López, E. Raffaele & **M.A. Aizen**. 2015. Structural-functional approach to identify post-disturbance recovery indicators in forests from northwestern Patagonia: a tool to prevent state transitions. *Ecological Indicators* 52: 85-95. (GS 7)
46. Quintero, C., J.C. Corley, & **M.A. Aizen**. 2015. Weak trophic links between a crab-spider and the effective pollinators of a rewardless orchid. *Acta Oecologica* 62: 32-39. (GS 3)
47. 96. Valiente-Banuet, A., **M.A. Aizen**, J.M. Alcántara, J. Arroyo, A. Cocucci, M. Galetti, M.B. García, D. García, J.M. Gómez, P. Jordano, R. Medel, L. Navarro, J.R. Obeso, R. Oviedo, N. Ramírez, P.J. Rey, A. Traveset, M. Verdú, & R. Zamora. 2015. Beyond species loss: the extinction of ecological interactions in a changing world. *Functional Ecology* 29: 299–307. (GS 220)
48. Gilarranz, L.J., M. Sabatino, **M.A. Aizen**, & J. Bascompte. 2015. Hotspots of mutualistic networks. *Journal of Animal Ecology* 84: 407–413. (GS 19)
49. Martyniuk, N.A., C. L. Morales, & **M.A. Aizen**. 2015. Invasive conifers reduce seed set of a native Andean cedar through heterospecific pollination competition. *Biological Invasions* 17: 1055-1067. (GS 6)