

MARIO B. PESENDORFER

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APPOINTMENTS

Postdoctoral Associate (2014 – current)

Cornell Lab of Ornithology, Ithaca, NY, USA

Advisers: John W. Fitzpatrick (2018 – current) & Walter D. Koenig (2014 – 2018).

Research Associate (2016 – current)

Smithsonian Conservation Biology Institute, National Zoological Park, Washington, D.C., USA

Collaboration with T. Scott Sillett & T. Brandt Ryder

EDUCATION

Ph.D. in Ecology, Evolution & Behavior (August 2014)

School of Biological Sciences, University of Nebraska –Lincoln, USA

Thesis: Scatter-Hoarding of Acorns by Island Scrub-Jays

Advisers: Alan Kamil & Alan Bond

Mag. rer. nat. in Zoology (July 2007)

Department of Cognition Biology, Faculty of Life Sciences, University of Vienna, Austria

Thesis: Individual and “Observational” Learning of Object Affordances in Kea (*Nestor notabilis*)

Graduated with Distinction & Thesis of the Year Award; Adviser: Ludwig Huber

RELEVANT EXPERIENCE

Terrestrial Ecology: Field Research, Data Analysis, and Publication

Long-term studies on bird & tree behavior, reproduction, seed dispersal, and habitat restoration.

Archbold Biological Station, Venus, Florida, USA (2018 – current)

Hastings Natural History Reservation, Carmel Valley, California, USA (2014 – current)

Channel Islands National Park, California, USA (2009 – current)

Bird Population Monitoring & Beaver Management

Trapping, banding, monitoring of passerines. Supervisor: Hans Winkler

Trapping, relocation, and management of wild beavers. Supervisor: Wolfgang Vogl

Konrad Lorenz Institute for Ethology, Vienna, Austria (2004 – 2008)

Avian & Primate Cognition: Lab Experiments, Field Research, Data Analysis, and Publication

Social and physical cognition in Kea (*Nestor notabilis*), ravens (*Corvus corax*) and common marmosets (*Callithrix jacchus*). Supervisors: Gyula Gajdon, Thomas Bugnyar, Ludwig Huber

Department of Cognition Biology, University of Vienna, Austria (2004 – 2008)

PUBLICATIONS

- [23] **Pesendorfer MB**, Bogdziewicz M, Koenig WD, Ledwon M, Zywiec M (accepted) Declining seed production before death in a widely distributed tree? *Annals of Forest Science*
- [22] Moreira X, Abdala-Roberts L, Pérez-Ramos IM, Knops JMH, **Pesendorfer MB**, Mooney KA, Koenig WD (in press) Climatic cues associated with masting dampen the negative autocorrelation between past and current reproduction in oaks. *American Journal of Botany*
- [21] **Pesendorfer MB**, Dickerson S, Dragoo J (2018) Observation of tool use in striped skunks: how community science and social media help document rare natural phenomena. *Ecosphere* 9: e02484.
- [20] Schubert SC*, **Pesendorfer MB**, Koenig WD (2018) Context-dependent post-dispersal predation of acorns in a California oak community. *Acta Oecologica*, 92: 52-58.
- [19] Koenig WD, Knops JMH, Carmen WJ, **Pesendorfer MB**, Dickinson JL (2018) Effects of mistletoe (*Phoradendron villosum*) on California oaks. *Biology Letters* 14: 20180240.
- [18] **Pesendorfer MB**, Koenig WD (2018) Does aggression avoidance drive oak tree attendance by corvid scatter-hoarders? *Behavioral Ecology and Sociobiology* 72: 85.
- [17] Borges S*, Oliveira F, Guerra R, Oliveira T, **Pesendorfer MB**, Bezerra B, Souto A, Schiel N (2018) Stay gathered rather than scattered: strategies of common marmosets during agonistic interactions with birds in the Atlantic rain forest. *Folia Primatologica*, in press.
- [16] **Pesendorfer MB**[#], Baker C[#], Stringer M, McEachern K, Bode M, McDonald-Madden E, Morrison SA, Sillett TS (2018) Oak habitat recovery on California's largest islands: scenarios for the role of corvid seed dispersal. *Journal of Applied Ecology* 55: 1185-1194.
- [15] Koenig WD, Knops JMH, **Pesendorfer MB**, Zaya D, Ashley M (2017) Drivers of spatial synchrony of acorn production in the valley oak (*Quercus lobata*) at two geographic scales. *Ecology* 98: 3056 – 3062.
- [14] Bogdziewicz M, Szymkowiak J, Kasprzyk I, Grewling L, Borowski Z, Borycka K, Kantorowicz W, Myszkowska D, Piotrowicz K, Ziemianin M, **Pesendorfer MB** (2017) Masting in wind-pollinated trees: the role of weather and pollination dynamics in driving seed production. *Ecology* 98: 2615 – 2625.
- [13] Koenig WD, **Pesendorfer MB**, Knops JMH (2017) Evolutionary drivers, proximate mechanisms, and spatial synchrony of acorn production in oaks. *International Oaks* 28: 29-40.
- [12] **Pesendorfer MB**, Koenig WD (2017). Competing for seed dispersal: evidence for the role of avian seed hoarders in mediating apparent predation among oaks. *Functional Ecology* 31: 622-631.
- [11] Koenig WD, Knops JMH, Carmen WJ, **Pesendorfer MB** (2017) Testing the terminal investment hypothesis in California oaks. *American Naturalist* 189: 564-569.

(* graduate student; # shared first authorship)

PUBLICATIONS (CONT'D)

- [10] **Pesendorfer MB**, Sillett TS, Morrison SA (2017) Spatially biased dispersal by a scatter-hoarding corvid may accelerate passive habitat restoration on California's largest island. *Current Zoology* 63: 363-367. (Cover article)
- [9] Koenig WD, Alejano R, Carbonero MD, Fernández-Rebollo P, Knops JMH, Marañón T, Padilla-Díaz CM, Pearse IS, Pérez-Ramos IM, **Pesendorfer MB** (2016) Is the relationship between mast-seeding and weather in oaks related to their life-history or phylogeny? *Ecology* 97: 2603-2615.
- [8] **Pesendorfer MB**, Sillett TS, Morrison SA, Kamil AC (2016). Context-dependent seed dispersal by a scatter-hoarding corvid. *Journal of Animal Ecology* 85: 798-805.
- [7] **Pesendorfer MB**, Koenig WD, Knops JMH, Pearse IS, Funk KA* (2016) Individual resource-limitation combined with population-wide pollen availability drives masting in the valley oak (*Quercus lobata*). *Journal of Ecology* 103: 637-645.
- [6] **Pesendorfer MB**, Koenig, WD (2016) The effect of within-year variation in acorn crop size on seed predation and dispersal by avian hoarders. *Oecologia* 181: 97-106.
- [5] **Pesendorfer MB**, Morrison SA, Sillett TS, Koenig, WD (2016) Scatter-hoarding corvids as seed dispersers for oaks and pines: a review of a widely distributed mutualism and its utility to habitat restoration. *The Condor: Ornithological Applications* 118: 215-237.
- [4] **Pesendorfer MB** (2015) The effect of seed size variation in *Quercus pacifica* on seedling establishment and growth. *Proceedings for the 7th California Oak Symposium: Managing Oak Woodlands in a Changing World. Nov. 2014, Visalia, CA.* pp. 407-412.
- [3] Pearse IS, Koenig WD, Funk KA*, **Pesendorfer MB** (2015) Pollen limitation and flower abortion in a wind-pollinated, masting tree. *Ecology* 96: 587-593.
- [2] **Pesendorfer MB**, Langin KM, Cohen B, Principe Z, Morrison SA, Sillett TS (2014) Stand structure and acorn production of island scrub oaks (*Quercus pacifica*). *Monographs of the Western North American Naturalist* 7: 246-259.
- [1] **Pesendorfer MB**, Gunhold T, Schiel N, Souto A, Huber L, Range F (2009) The maintenance of traditions in free-living marmosets: individual habit or social conformity? A field experiment. *PLoS ONE* 4: e4472.

IN PROGRESS

- [23] Hagemeyer NDGH***, **Pesendorfer MB**#, Koenig WD, Walters EL (in revision) Investigating the mechanisms underlying the abundance occupancy relationship in a habitat specialist. *Ecography*

(* graduate student; # shared first authorship)

FUNDING

- **The Nature Conservancy (2018 - 2019)** The role of animal-mediated seed dispersal in the recovery of oak chaparral from wildfire \$ **49,896** (Co-PI w/ T. S. Sillett)
- **The Nature Conservancy (2014 - 2017)** Demographic and behavioral response of island scrub-jays to variation in acorn crops. \$ **189,843** (Co-PI with T. S. Sillett)
- **Polish Academy of Sciences (2017 - 2020)** Phenology synchrony or pollen coupling? Experimental evaluation of the role of pollen limitation and plant' resource state in driving seed production in masting plants. \$ **158,608** (Co-PI w/ M. Bogdziewicz, R. Bonal, E.E. Crone, J.M. Espelta)

AWARDS & FELLOWSHIPS

- **Outstanding Leadership in Conservation Education** Office of Education Partnerships, UC Santa Barbara & Smithsonian Conservation Biology Institute, Washington, D.C.; 2018
- **Visiting Student Fellowship** Smithsonian Institution, Washington, D.C.; 2013 (\$ **15,000**)
- **Smithsonian Predoctoral Fellowship** Council for Institutional Cooperation & Smithsonian Institution, Washington, D.C; 2012 (\$ **30,000**)
- **Travel Awards** International Society for Behavioral Ecology; 2012 - 2016 (\$ **1,700**)
- **Graduate Student Fellowship** Smithsonian Institution, Washington, D.C.; 2010 (\$ **6,500**)
- **Animal Behavior Society Research Award**; 2010 (\$ **500**)
- **American Ornithologists' Union Research Award**; 2010 (\$ **700**)
- **Special Funds Award** University of Nebraska - Lincoln; 2009 (\$ **1,500**)
- **Graduated w. Distinction / Thesis of the Year.** Cognition Biology, Univ. of Vienna; 2007

SERVICE

- **Early Career Editorial Board** for *The Condor* (2010 - 2013)
- **Membership Committee Member** American Ornithological Society (2018 - current)
- **Ad-Hoc Reviewer.** American Journal of Botany, Animal Behaviour, Annals of Botany, Behavioral Ecology and Sociobiology, Biology Letters, The Condor, Current Zoology, Ecology, Ecological Entomology, Functional Ecology, Ibis, Journal of Animal Ecology, Journal of Ecology, Journal of Field Ornithology, New Phytologist, New Zealand Journal of Zoology, Oikos, Plant Ecology, PLoS one, Science of the Total Environment, Tropical Conservation Science, Western Birds, Western North American Naturalist
- **Grant Reviewer** *Animal Behavior Society*, *Ohio Agricultural Research and Development Center (OARDC)*, *Polish Academy of Sciences*, *Rufford Small Grant Program*, *Sigma Xi*

TEACHING

- **R Introductory Course** Self-developed; Hastings Natural History Reservation, 2014 - 18
- **Field Animal Behavior** University of Nebraska - Lincoln, 2012 (Co-taught w/ Al Kamil)
- **Field Ornithology** University of Nebraska - Lincoln, 2011 (Co-taught w/ John Faaborg)
- **Introductory Biology Laboratory**; University of Nebraska - Lincoln, 3 Semesters (TA)
- **Organismic Bio Laboratory**; University of Nebraska - Lincoln, 3 Semesters (TA)
- **Selected Guest Lectures** (of 20+)
 - **Field Ecology Course** UC NRS course (UC Santa Cruz), September 2016; 2017
 - **California Ecosystems** Jepson Herbarium Course, April 2014 - 2016
 - **Field Ecology** University of Chicago, April 2015 & 2016
 - **Ecology** CSU Monterey Bay, Dec 2015, May 2016
 - **California Ecosystems** UC Berkeley, May 2015
 - **Restoration Ecology** Santa Barbara City College, annually, 2014 - current
 - **Introductory Zoology** University of Nebraska - Lincoln, May 2012

MENTORING

- **Smithsonian Scholars Program.** Mentored 30+ students in a collaboration with UC Santa Barbara & Smithsonian Institution. Students participate in workshops, fieldwork, and excursions to Channel Islands National Park, Smithsonian Conservation Biology Institute, Smithsonian Tropical Research Institute (Panama) (2015 - current) (https://oep.ucsb.edu/programs/smithsonian_scholars_project/)
- **Field Technicians.** 24 recent graduates trained in data collection, sample processing, basic data analysis, many with independent research projects (2009 - 2018)
- **Undergraduate Thesis Reader** for 3 Natural Resources students. University of Nebraska - Lincoln and Cornell University
- **7 Publications with Graduate Students.** 4 published, 1 submitted, 2 in prep
- **Graduate Internship Mentor** Cornell Lab of Ornithology & University of Alcalá, Spain
Ph.D. student Loreto Martínez de Baroja Villalón

OUTREACH

- **Channel Islands Future Scientists Camp – Initiator & Organizer.** 80+ students from underrepresented minority background experienced a full immersion course in ecology while volunteering in forest restoration projects. Guest lectures by geologists, historical ecologists, and conservation practitioners. 2016: Santa Rosa Island, 2017 & 2018: Santa Cruz Island, Channel Islands National Park, California, USA
- **Middle & High School Guest Lectures** (30+) at various locations around California
- **Scientific Consulting.** “*Wildlife as Canon Sees It*” advertising campaign in National Geographic Magazine, supervised by Joel Sartore (2012 to current)
- **Scientific Consulting** BBC Natural History Unit (2014 - 2018)
- **Scientific American Interview** for podcast about scatter-hoarding review (2016)
- **Guest Blog Post** for British Ornithological Union (2016)

SOCIETY MEMBERSHIPS

- **American Society of Naturalists ASN** (2017 to present)
- **International Society for Behavioral Ecology ISBE** (2011 to present)
- **Animal Behavior Society ABS** (2009 to present)
- **American Ornithologists’ Union AOU** (2009 to present)
- **Comparative Cognition Society CCS** (2008 to present)
- **Association for the Study of Animal Behaviour ASAB** (2005 – 2009)
- **German Ethological Society** (Ethologische Gesellschaft EG) (2005 to present)

INVITED PRESENTATIONS

- **From Shore to Sea Lecture, Channel Islands National Park**, Ventura, CA, Oct 2018
- **Archbold Biological Station**, Seminar Series, Venus, FL, Sep 2018
- **Smithsonian Migratory Bird Center**, National Zoological Park, Washington, D.C., Jan 2018
- **Old Dominion University**, Norfolk, VA, Jan 2018
- **Santa Barbara Botanical Garden**, Santa Barbara, CA, Jun 2017
- **Sedgwick Lecture Series**, UC Santa Barbara, May 2017
- **EcoSeries. Humboldt State University**, Arcata, CA, Apr 2017
- **Sedgwick Lecture Series**, UC Santa Barbara, May 2015, July 2016
- **Smithsonian Conservation Biology Lecture Series**, National Zoological Park, Apr 2014
- **Corvid Cognition Symposium**, Int. Society for Behavioral Ecology, Lund, Sve, Aug 2012
- **Madingley Lecture**, Sub-Department of Animal Behaviour, Cambridge University, Feb 2008

SELECTED CONFERENCE PRESENTATIONS*

- **American Ornithology 2018**, Tucson, AZ, April 9-14, 2018
- **American Society of Naturalists**, Asilomar, CA, Jan 5-9, 2018
- **British Ornithologists' Union**, Twitter Conference, November 27-28, 2017
- **California Islands Symposium**, Ventura, CA, October 3-7, 2016
- **International Society for Behavioral Ecology**, Exeter, U.K., July 29 – August 2, 2016
- **Bay Area Conservation Biology Symposium**, Palo Alto, CA, May 7, 2016
- **California Oak Symposium**, Visalia, CA, November 3-6, 2014
- **International Society for Behavioral Ecology**, New York, NY, July 31 – August 5, 2014
- **Comparative Cognition Society**, Melbourne, FL, March 10-15, 2013
- **International Society for Behavioral Ecology**, Lund, Sweden, August 11-17, 2012
- **Animal Behavior Society**, Bloomington, IN, July 25-30, 2011
- **Midwestern Ecology and Evolution Meeting**, Lincoln, NE, July 2009
- **Ethologische Gesellschaft Special Meeting**, Grünau, Austria, February 2007
- **European Conference on Behavioral Biology**, Belfast, N. Ireland, July 2006
- **International Ethological Conference**, Budapest, Hungary, August 2005

*presenter & first author

REFERENCES

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