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Curriculum Vitae (of 11.4.2017)

Born: 29th of October 1976 in Wagna, Austria
1995: High School Matura at Bundesrealgymnasium Leibnitz
1995-2005: Study of Zoology at University of Graz.
2000: Research internship at the CNRS Laboratoire de Populations, Genetique et Evolution in Gif-sur-Yvette (France)
2005: Master thesis "Changes in the patriline composition of a honeybee colony" (univ. Prof. Karl Crailsheim)
2006-2007: Employee for FWF Project P15961-B06 (Body temperature and energetics of foraging bees and wasps)
2007-2011: Scientific employee at the Department of Zoology, University of Graz
2007-2012: Phd thesis "Nutrition of honey bees (*Apis mellifera*) on larval, adult and colony level" (univ. Prof. Karl Crailsheim)
2010-present: Holding Lectures and Seminars at University of Graz
2012: Employee at Styrian Beekeepers Association
2012-present: Postdoc at the University of Graz (Institute of Zoology)
2013-present: Holding Lectures and Seminars at University of Veterinary Medicine, Vienna
2017-present: Holding Lectures at University of Natural Resources and Life Sciences (BOKU), Vienna.

Awards

2002: University of Graz Scholarship
2010: Dr. Heinrich Jörg Scholarship
2011: Award of the Austrian Entomological Society (ÖEG)
2011: Evenius-Prize at conference of Association of the German Bee Research Institutes for best student's poster: Florian Steinleitner, Robert Brodschneider, Karl Crailsheim: Effect of temperature during the pupal development on flight performance of honey bees (*Apis mellifera*).
2013: 1st Place TUN Fonds (Environment and Sustainability Fund) for www.Bienenstand.at 20.000 Euro
2015: Gold Medal at World beekeeping awards at Apimondia in Daejeon, South Korea for best website (www.Bienenstand.at)
2017: Citizen Science Award (for Bienenstand.at – monitoring of honey bee colony losses)

Grants

2014: Winter colony losses and renewal of honey bee livestock in Austria and the Czech Republic (Aktion: Austrian-Czech cooperation project 69p11)
2014-2017: Project "Zukunft Biene" funded by the Austrian ministry for agriculture, the Austrian provinces and the beekeeping association "Biene Österreich" 2.481.705 Euro
2015: Honey bee colony losses in Austria and the Czech Republic and relation to the bee immune system (Aktion: Austrian-Czech cooperation project 71p6)
2015: START Danube Region Project: Bee=Biodiversity 36.150 Euro

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2015-2016: Contract research funded by Agrana: Untersuchung der Eignung einer teilinvertierten Bio-Zuckerlösung zur Bienenfütterung 18.568,14 Euro
2016: Economic impact of winter losses of honey bee colonies and research on honey bee immunity (Aktion: Austrian-Czech cooperation project 74p4)
2016: FFG Project (855376) "Bienenforschung" 1.000 Euro
1.7.2016-30.6.2018: Honey bee colony losses in Austria and Macedonia: risk analysis and economic impact (International Cooperation & Mobility (ICM) of the Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH) Project No. MK 01/2016)
1.1.2017-31.12.2018: Study of honey bee colony losses in Ukraine and Austria: Joint analysis of the data and risk factors, informational support of beekeepers (International Cooperation & Mobility (ICM) of the Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH) Project No. UA 01/2016) 10.640,00 Euro
2017: Application of geoinformational and biochemical approaches for analysis of honey bee colony losses (01.03.2017 - 28.02.2018 Aktion 78p8 Österreich/Tschechien)

Fellowships

2009-2012: MC Substitute Member of Prevention of Honey Bee Colony Losses (COLOSS)
2012-present: Member of International Bee Research Association (IBRA)
2013-present: Executive Committee Member of Prevention of Honey Bee Colony Losses (COLOSS)
2014-present: Member of Citizen Science Association

Refereed Publications

21 peer-reviewed and web of science (all databases) listed publications (see list below), h-index 11, sum of times cited: 453, without self-citation 421.
2 "highly cited papers" (top 1% of its academic field).

Other Publications

6 Book chapters (5 "Beebook" chapters are also published in peer reviewed scientific JAR)
12 Articles in Beekeeping Journals
4 other Articles
More than 50 abstracts in conference proceedings

Digital works:

www.Bienenstand.at (since 2013)

www.zukunft-biene.at (since 2014)

www.alien-hornet.org (since 2016)

Teaching

Since 2006: Lectures and courses at the University of Graz, currently lecture and course "Behaviour and Physiology of Social Insects" and course "Animal behaviour".

Since 2013: Lectures and courses at the Veterinarian University of Vienna, currently lecture "Apiology, honey bee health and bee pathology" and course "Honey bee pathology".

Since 2017: Lecture "Beekeeping" at the University of Natural Resources and Life Sciences, Vienna.

Organisation

COLOSS workshop: "Method standardization for larval tests" in Graz, 7.-9.6.2010

COLOSS workshop: "Estimation of honey bee colony losses - Continuity and visibility" in Graz, 4.-5.2.2014

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COLOSS workshop: “The C.S.I. Pollen workshop – Training the national coordinators” in Graz, 6.-7.2.2014

SUPER-B workshop: “Sustainable pollination in Europe - joint research on bees and other pollinators” in Graz, 15.-16.3.2016

Referee for

Apidologie
Computers and Electronics in Agriculture
Ecohealth
Journal of Apicultural Research
Journal of Economic Entomology
Journal of Insects
Journal of Insect Physiology
Journal of Invertebrate Pathology
Journal of visualized Experiments
PeerJ
Plos One
Rubriq
Saudi Journal of Biological Sciences
Scientific Reports

List of Peer Reviewed and Web of Science listed Publications

Hrassnigg, Brodschneider, Fleischmann, Crailsheim (2005) Unlike nectar foragers, honeybee drones (*Apis mellifera*) are not able to utilize starch as fuel for flight. *Apidologie* 36: 547-557.

Kovac, Stabentheiner, Brodschneider (2009) Contribution of honeybee drones of different age to colonial thermoregulation. *Apidologie* 40: 82–95.

Brodschneider, Riessberger-Gallé, Crailsheim (2009) Flight performance of artificially reared honeybees (*Apis mellifera*). *Apidologie* 40: 441–449.

Brodschneider, Moosbeckhofer, Crailsheim (2010) Surveys as a tool to record winter losses of honey bee colonies: a two year case study in Austria and South Tyrol. *Journal of Apicultural Research* 49: 23-30.

Stabentheiner, Kovac, Brodschneider (2010) Honeybee colony thermoregulation – regulatory mechanisms and contribution of individuals in dependence on age, location and thermal stress. *Plos ONE* 5: e8967. doi:10.1371/journal.pone.0008967. (13 pages)

Brodschneider, Crailsheim (2010) Nutrition and health in honeybees. *Apidologie* 41: 278–294.

van der Zee, Pisa, Andonov, Brodschneider, Charrière, Chlebo, Coffey, Crailsheim, Dahle, Gajda, Gray, Drazic, Higes, Kauko, Kence, Kence, Kezic, Kiprijanovska, Kralj, Kristiansen, Martin Hernandez, Mutinelli, Nguyen, Otten, Özkırım, Pernal, Peterson, Ramsay, Santrac, Soroker, Topolska, Uzunov, Vejsnæs, Wei, Wilkins (2012) Managed honey bee colony losses in Canada, China, Europe, Israel and Turkey, for the winters of 2008-9 and 2009-10. *Journal of Apicultural Research* 51: 100-114.

Brodschneider, Arnold, Hrassnigg, Crailsheim (2012) Does Patriline Composition Change over a Honey Bee Queen’s Lifetime? *Insects*, 3, 857-869; doi:10.3390/insects3030857

vanEngelsdorp, Brodschneider, Brostaux, van der Zee, Pisa, Underwood, Lengerich, Spleen, Neumann, Wilkins, Budge, Pietravalle, Allier, Vallon, Human, Muz, Le Conte, Caron, Baylis, Haubruge, Pernal, Melathopoulos, Saegerman, Pettis, Nguyen (2012) Calculating and reporting managed honey bee colony losses, in *Honey Bee Colony Health: Challenges & Sustainable Solutions* (ed. Sammataro and Yoder) CRC Press, Taylor & Francis Group, Boca Raton, 229-236.

Williams, Alaux, Costa, Csáki, Doublet, Eisenhardt, Fries, Kuhn, McMahon, Medrzycki, Murray, Natsopoulou, Neumann, Oliver, Paxton, Pernal, Shutler, Tanner, van der Steen, Brodschneider (2013) Standard methods for maintaining adult *Apis mellifera* in cages under in vitro laboratory conditions. In V Dietemann; J D Ellis; P Neumann (Eds) *The COLOSS BEEBOOK, Volume I: standard methods for *Apis mellifera* research*. *Journal of Apicultural Research* 52(1): <http://dx.doi.org/10.3896/IBRA.1.52.1.04>

Crailsheim, Brodschneider, Aupinel, Behrens, Genersch, Vollmann, Riessberger-Gallé (2013) Standard methods for artificial rearing of *Apis mellifera* larvae. In V Dietemann; J D Ellis; P Neumann (Eds) *The COLOSS BEEBOOK, Volume I: standard methods for *Apis mellifera* research*. *Journal of Apicultural Research* 52(1): <http://dx.doi.org/10.3896/IBRA.1.52.1.05>

Scheiner, Abramson, Brodschneider, Crailsheim, Farina, Fuchs, Grünewald, Hahshold, Karrer, Koeniger, Koeniger, Menzel, Mujagic, Radspieler, Schmickl, Schneider, Siegel, Szopek, Thenius (2013) Standard methods for behavioural studies of *Apis mellifera*. In V Dietemann; J D Ellis; P Neumann (Eds) *The COLOSS BEEBOOK, Volume I: standard methods for *Apis mellifera* research*. *Journal of Apicultural Research* 52(4): <http://dx.doi.org/10.3896/IBRA.1.52.4.04>

Human, Brodschneider, Dietemann, Dively, Ellis, Forsgren, Fries, Hatjina, Hu, Jaffé, Jensen, Köhler, Magyar, Özkirim, Pirk, Rose, Strauss, Tanner, Tarpy, Van Der Steen, Vaudo, Vejsnæs, Wilde, Williams, Zheng (2013) Miscellaneous standard methods for *Apis mellifera* research. In V Dietemann; J D Ellis; P Neumann (Eds) *The COLOSS BEEBOOK, Volume I: standard methods for *Apis mellifera* research*. *Journal of Apicultural Research* 52(4): <http://dx.doi.org/10.3896/IBRA.1.52.4.10>

van der Zee, Gray, Holzmann, Pisa, Brodschneider, Chlebo, Coffey, Kence, Kristiansen, Mutinelli, Nguyen, Adjlane, Peterson, Soroker, Topolska, Vejsnæs, Wilkins (2013) Standard survey methods for estimating colony losses and explanatory risk factors in *Apis mellifera*. In V Dietemann; J D Ellis; P Neumann (Eds) *The COLOSS BEEBOOK, Volume II: Standard methods for *Apis mellifera* research*. *Journal of Apicultural Research* 52(4): <http://dx.doi.org/10.3896/IBRA.1.52.4.18>

van der Zee, Brodschneider, Brusbardis, Charrière, Chlebo, Coffey, Dahle, Drazic, Kauko, Kretavicius, Kristiansen, Mutinelli, Otten, Peterson, Raudmets, Santrac, Seppälä, Soroker, Topolska, Vejsnæs, Gray (2014) Results of international standardised beekeeper surveys of colony losses for winter 2012-2013: analysis of winter loss rates and mixed effects modelling of risk factors for winter loss. *Journal of Apicultural Research* 53: 19-34.

Kovac, Stabentheiner, Brodschneider (2015) What do foraging wasps optimize in a variable environment, energy investment or body temperature? *Journal of comparative Physiology A* 201: 1043-1052.

Krainer, Brodschneider, Vollmann, Crailsheim, Riessberger-Gallé (2016) Effect of Hydroxymethylfurfural (HMF) on mortality of artificially reared honey bee larvae (*Apis mellifera carnica*). *Ecotoxicology* 25: 320-328.

Brodschneider, Gray, van der Zee, Adjlane, Brusbardis, Charrière, Chlebo, Coffey, Crailsheim, Dahle, Danihlik; Danneels, de Graaf, Dražić, Fedoriak, Forsythe; Golubovski, Gregorc, Grzęda, Hubbuck, İvgin

Tunca, Kauko, Kilpinen, Kretavicius, Kristiansen, Martikkala, Martín-Hernández, Mutinelli, Peterson, Otten, Ozkirim, Raudmets, Simon-Delso, Soroker, Topolska; Vallon; Vejsnæs, Woehl (2016) Preliminary analysis of loss rates of honey bee colonies during winter 2015/16 from the COLOSS survey. *Journal of Apicultural Research*, 55: 375-378. DOI:10.1080/00218839.2016.1260240

Switanek, Crailsheim, Truhetz, Brodschneider (2017) Modelling seasonal effects of temperature and precipitation on honey bee winter mortality in a temperate climate. *Science of the Total Environment* 579 (2017) 1581-1587.

Brodschneider, Libor, Kupelwieser, Crailsheim (2017) Food consumption and food exchange of caged honey bees using a radioactive labelled sugar solution. *PLoS ONE* 12(3): e0174684. doi:10.1371/journal.pone.0174684

Omar, Abd-Ella, Khodairy, Moosbeckhofer, Crailsheim, Brodschneider (2017) Influence of different pollen diets on the development of hypopharyngeal glands and size of acid gland sacs in caged honey bees (*Apis mellifera*). *Apidologie*, in press.

Other articles

Hrassnigg, Brodschneider, Fleischmann, Crailsheim (2003) Worker bees (*Apis mellifera* L.) are able to utilize starch as fuel for flight while drones are not. *Apiacta*

Brodschneider, Crailsheim (2011) Völkerverluste der Honigbiene: Risikofaktoren für die Bestäubungssicherheit in Österreich. *Entomologica Austriaca* 18: 73-86.

Brodschneider, Crailsheim (2013) Fünf Jahre Untersuchung des Bienensterbens in Österreich. *Entomologica Austriaca* 20: 195-205.

Hugo Hoofwijk, Tjeerd Blacquière, Victor Obregon Arzaluz, Martina Vijver, Kees Musters, Robert Brodschneider (2013) Mobiele telefonie en de ontwikkeling van honingbijen. Wageningen UR rapport 298.

van der Steen, Brodschneider (2014) Public Participation In Bee Science: C.S.I. Pollen. *Bee World* 91(1): 25-27.

Grobbauer, Strauss, Brodschneider (2017): Präferenz unterschiedlicher Arten der Gattung *Bombus* (Hymenoptera: Apidae) sowie anderer Bestäuber für Blüten des steirischen Ölkürbisses. *Entomologica Austriaca* 24: 49-63.