

**MSc „Environmental Sciences / Forest Sciences /Biology
Module (64120): „Global Perspectives on Integrated Pest and Pollinator Management (IPPM)“:
A virtual classroom between the University of Freiburg and the Penn State University**

Module plan „Wintersemester“ 2020/21

Preliminary, - Status: 29.09.2020

Module coordination at ALU: Prof. Dr. Alexandra-Maria Klein (ALU, Earth & Environmental Sciences)

Lectures: Prof. Dr. Andrew Straw (ALU, Biology), Prof. Dr. Christina Grozinger (Penn State), Dr. Natalie Boye (Penn State)

Time: 14.10.2020 introduction; course days between: 20.10.2020-09.02.2021; 23.02.2021 summary and evaluation, 5pm - 7:30pm

Location: online

Examen form: Written summary of an expert talk and leading an expert discussion

Date	Topic	Speaker(s)
21-Oct	General Introduction to IP(P)M: past successes and future applications	Ed Rajotte (Penn State) & NN (UK)
28-Oct	Causes for and drivers of insecticide resistance in urban and agricultural settings	Ralf Nauen (Bayer)
4-Nov	Molecular and neural circuit effects of insecticides and implications for pest control/pollination	Andrew Straw (University of Freiburg)
11-Nov	Individual- to colony-level impacts of pesticide exposure in honey bees	James Crall (Harvard) & (NN Uni Bern)
18-Nov	Genomic technologies: RNAi against pests, CRISPR in bees, gene drive, sterile insect release etc	Christina Grozinger (Penn State) & Rose Zhu (Penn State)
2-Dec	Risk assessment and regulatory influences on pest management: Europe and US	Tom Steeger (USEPA) & Alessio Ippolito (EFSA)
9-Dec	Industry perspective on IPM and environmental stewardship	Christian Maus (Bayer) & Bruce Hall (Wymans of ME)
12-Jan	Non-profit perspective on IPM and environmental stewardship	Mace Vaughan (US Xerces Society) & NN (Nabu or BUND)
19-Jan	Case study: apple IPPM in US versus Germany	David Biddinger (Penn State) & Katja Röser (Marktgemeinschaft Bodenseeobst)
26-Jan	IPPM in the developed v. developing world	Sulav Paudel (Penn State alum in Nepal)
2-Feb	Case study: pests and pollinators in urban areas	Kim Skyrn (MA Apiary inspector) & Nathalie Baumann (U. Wädensvil) or Dave Goulson (Sussex) – second speaker not yet confirmed
9-Feb	Case study: Monocultures in Germany (oilseed rape) versus US (corn, soybean)	Drs. John Tooker (Penn State) & Ola Lundin (SLU; not yet confirmed)