

Recent records of *Ceratitis* sp. and *Bactrocera* spp. (Tephritidae, Diptera) in Austria

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INTRODUCTION

- Increase of **interceptions** of invasive tephritid species at EU entry points
- **Findings of non-native fruit flies** in AT during the last two decades
- Presence of economically important **host plants** in AT for invasive species
- Risk of establishment / overwintering potential of invasive species uncertain in AT

Survey for *Ceratitis* spp. and *Bactrocera* spp. in Austria



B. kandiensis - important morphological characters:
 femora fulvous, with large dark markings
 postpronotal lobe with dark anteromedial corner (arrow)
 tergites 3-5 with „T“-pattern & narrow anterolateral markings

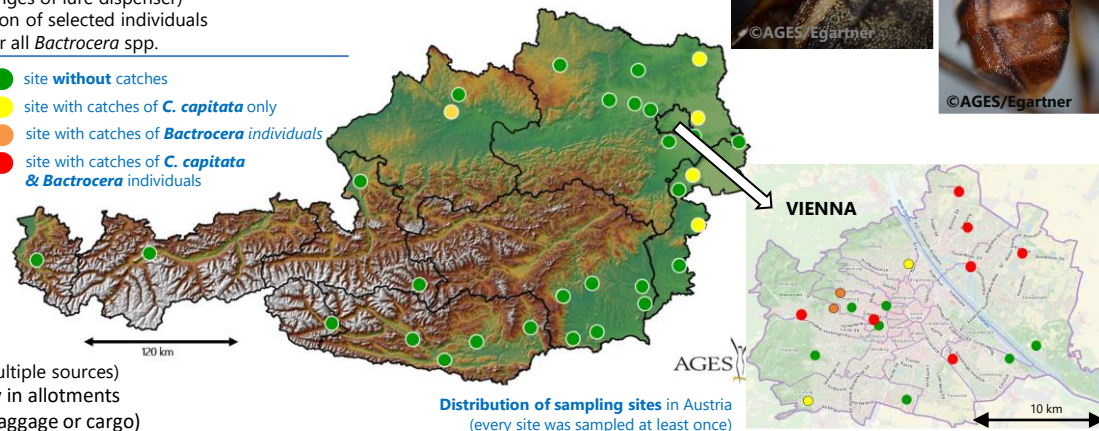
MATERIALS & METHODS

- Limited survey activities in Vienna between 2010 and 2015, with increasing intensity
- **2016 – 2019: up to >40 sites per year** (all provinces), mainly in commercial **orchards or allotments**
- **Traps: Maxitrap[®]** mainly with parapheromones (male attracting **Trimedlure** or **Methyl eugenol**)
 per site: 2 traps for *Ceratitis* spp. + 2 traps for *Bactrocera* spp.
- **Investigation period: June – October** (fruiting season; fortnightly trap service, 3 changes of lure dispenser)
- **Identification: morphologically + molecular** analysis for confirmation of identification of selected individuals
- **Molecular sequencing** to determine the potential source of the caught specimens for all *Bactrocera* spp.

RESULTS & CONCLUSION

	2010-2015	2016	2017	2018	2019
<i>C. capitata</i>	121	766	115	182	140
<i>B. zonata</i>	6	1	5	1	1
<i>B. dorsalis</i> s.l.	1	1	0	7	6
<i>B. kandiensis</i>	0	0	0	0	1

- site **without** catches
- site with catches of *C. capitata* only
- site with catches of *Bactrocera* individuals
- site with catches of *C. capitata* & *Bactrocera* individuals



- **All *Bactrocera* specimens and ~99% of *C. capitata* specimens caught in Vienna**
- Most *Bactrocera* specimens of the various years were **molecularly different** (=> multiple sources)
- **repeated findings of non-native, invasive fruit flies in the city of Vienna**, mainly in allotments close to market areas, due to repeated entries of juveniles with infested fruit (baggage or cargo)

SUPPORT AND REFERENCES

Survey activities were carried out with the support of the official Plant Protection Services of Austria.
 Further details in: Egartner et al. (2019), IOBC-WPRS Bulletin Vol. 146, 143-152.
 Egartner et al. (2019), Bulletin OEPP/EPPO Bulletin 49(3), 578-584 (<https://doi.org/10.1111/epp.12604>).

RELATED PROJECTS:

EUPHRESKO network projects:
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