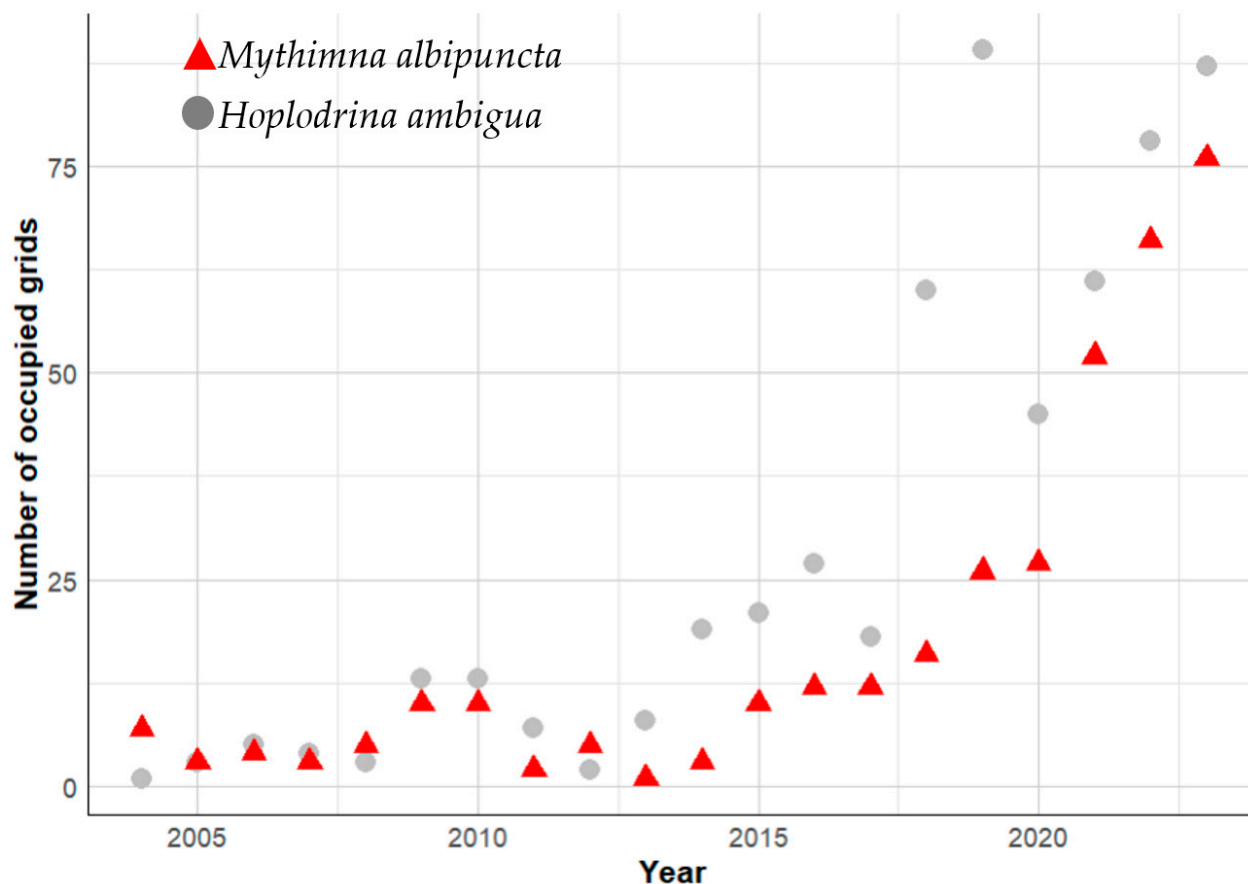


a)



b)

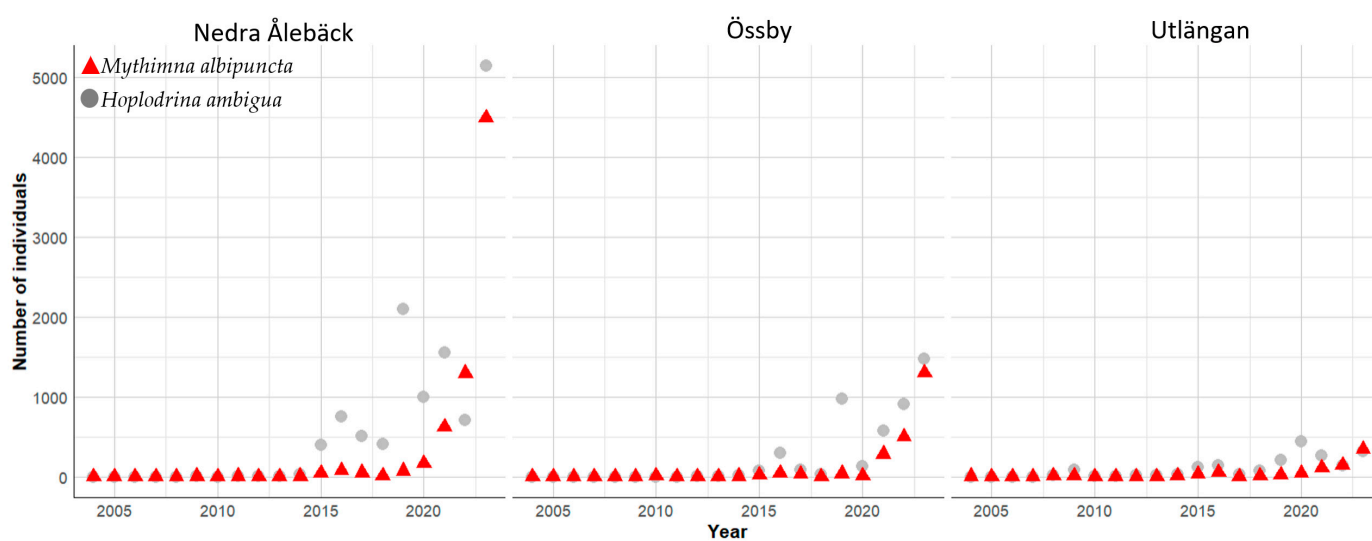


Figure S1. a) Distribution area (expressed as the number of occupied 60 km² grids), and b) abundance of *Mythimna albipuncta* and *Hoplodrina ambigua* during the course of the study (2004–2023). Data on distribution area refers to the Global Biodiversity Information Facility (GBIF), while data on abundance refers to the three light-traps in southeastern Sweden used in this study.

Table S1. The recorded abundance of *Mythimna albipuncta* and *Hoplodrina ambigua* per trap and year.

| Species | Site | Year | Individuals |
|---------------------|---------------|------|-------------|
| Hoplodrina ambigua | Nedre aleback | 2004 | 0 |
| Hoplodrina ambigua | Ossby | 2004 | 0 |
| Hoplodrina ambigua | Utlangan | 2004 | 0 |
| Mythimna albipuncta | Nedre aleback | 2004 | 0 |
| Mythimna albipuncta | Ossby | 2004 | 0 |
| Mythimna albipuncta | Utlangan | 2004 | 7 |
| Hoplodrina ambigua | Nedre aleback | 2005 | 0 |
| Hoplodrina ambigua | Ossby | 2005 | 0 |
| Hoplodrina ambigua | Utlangan | 2005 | 2 |
| Mythimna albipuncta | Nedre aleback | 2005 | 1 |
| Mythimna albipuncta | Ossby | 2005 | 3 |
| Mythimna albipuncta | Utlangan | 2005 | 0 |
| Hoplodrina ambigua | Nedre aleback | 2006 | 0 |
| Hoplodrina ambigua | Ossby | 2006 | 0 |
| Hoplodrina ambigua | Utlangan | 2006 | 1 |
| Mythimna albipuncta | Nedre aleback | 2006 | 1 |
| Mythimna albipuncta | Ossby | 2006 | 4 |
| Mythimna albipuncta | Utlangan | 2006 | 4 |
| Hoplodrina ambigua | Nedre aleback | 2007 | 0 |
| Hoplodrina ambigua | Ossby | 2007 | 1 |
| Hoplodrina ambigua | Utlangan | 2007 | 2 |
| Mythimna albipuncta | Nedre aleback | 2007 | 0 |
| Mythimna albipuncta | Ossby | 2007 | 4 |
| Mythimna albipuncta | Utlangan | 2007 | 0 |
| Hoplodrina ambigua | Nedre aleback | 2008 | 0 |
| Hoplodrina ambigua | Ossby | 2008 | 1 |
| Hoplodrina ambigua | Utlangan | 2008 | 18 |
| Mythimna albipuncta | Nedre aleback | 2008 | 2 |
| Mythimna albipuncta | Ossby | 2008 | 1 |
| Mythimna albipuncta | Utlangan | 2008 | 12 |
| Hoplodrina ambigua | Nedre aleback | 2009 | 5 |
| Hoplodrina ambigua | Ossby | 2009 | 3 |
| Hoplodrina ambigua | Utlangan | 2009 | 86 |
| Mythimna albipuncta | Nedre aleback | 2009 | 8 |
| Mythimna albipuncta | Ossby | 2009 | 6 |
| Mythimna albipuncta | Utlangan | 2009 | 17 |
| Hoplodrina ambigua | Nedre aleback | 2010 | 0 |
| Hoplodrina ambigua | Ossby | 2010 | 2 |
| Hoplodrina ambigua | Utlangan | 2010 | 8 |
| Mythimna albipuncta | Nedre aleback | 2010 | 3 |

| | | | |
|---------------------|---------------|------|-----|
| Mythimna albipuncta | Ossby | 2010 | 11 |
| Mythimna albipuncta | Utlangan | 2010 | 1 |
| Hoplodrina ambigua | Nedre aleback | 2011 | 9 |
| Hoplodrina ambigua | Ossby | 2011 | 1 |
| Hoplodrina ambigua | Utlangan | 2011 | 6 |
| Mythimna albipuncta | Nedre aleback | 2011 | 7 |
| Mythimna albipuncta | Ossby | 2011 | 3 |
| Mythimna albipuncta | Utlangan | 2011 | 2 |
| Hoplodrina ambigua | Nedre aleback | 2012 | 14 |
| Hoplodrina ambigua | Ossby | 2012 | 6 |
| Hoplodrina ambigua | Utlangan | 2012 | 17 |
| Mythimna albipuncta | Nedre aleback | 2012 | 0 |
| Mythimna albipuncta | Ossby | 2012 | 0 |
| Mythimna albipuncta | Utlangan | 2012 | 0 |
| Hoplodrina ambigua | Nedre aleback | 2013 | 8 |
| Hoplodrina ambigua | Ossby | 2013 | 4 |
| Hoplodrina ambigua | Utlangan | 2013 | 21 |
| Mythimna albipuncta | Nedre aleback | 2013 | 0 |
| Mythimna albipuncta | Ossby | 2013 | 0 |
| Mythimna albipuncta | Utlangan | 2013 | 1 |
| Hoplodrina ambigua | Nedre aleback | 2014 | 34 |
| Hoplodrina ambigua | Ossby | 2014 | 24 |
| Hoplodrina ambigua | Utlangan | 2014 | 33 |
| Mythimna albipuncta | Nedre aleback | 2014 | 8 |
| Mythimna albipuncta | Ossby | 2014 | 8 |
| Mythimna albipuncta | Utlangan | 2014 | 13 |
| Hoplodrina ambigua | Nedre aleback | 2015 | 395 |
| Hoplodrina ambigua | Ossby | 2015 | 76 |
| Hoplodrina ambigua | Utlangan | 2015 | 116 |
| Mythimna albipuncta | Nedre aleback | 2015 | 43 |
| Mythimna albipuncta | Ossby | 2015 | 22 |
| Mythimna albipuncta | Utlangan | 2015 | 37 |
| Hoplodrina ambigua | Nedre aleback | 2016 | 754 |
| Hoplodrina ambigua | Ossby | 2016 | 294 |
| Hoplodrina ambigua | Utlangan | 2016 | 138 |
| Mythimna albipuncta | Nedre aleback | 2016 | 83 |
| Mythimna albipuncta | Ossby | 2016 | 43 |
| Mythimna albipuncta | Utlangan | 2016 | 58 |
| Hoplodrina ambigua | Nedre aleback | 2017 | 513 |
| Hoplodrina ambigua | Ossby | 2017 | 88 |
| Hoplodrina ambigua | Utlangan | 2017 | 31 |
| Mythimna albipuncta | Nedre aleback | 2017 | 51 |

| | | | |
|---------------------|---------------|------|------|
| Mythimna albipuncta | Ossby | 2017 | 33 |
| Mythimna albipuncta | Utlangan | 2017 | 4 |
| Hoplodrina ambigua | Nedre aleback | 2018 | 408 |
| Hoplodrina ambigua | Ossby | 2018 | 27 |
| Hoplodrina ambigua | Utlangan | 2018 | 78 |
| Mythimna albipuncta | Nedre aleback | 2018 | 9 |
| Mythimna albipuncta | Ossby | 2018 | 4 |
| Mythimna albipuncta | Utlangan | 2018 | 17 |
| Hoplodrina ambigua | Nedre aleback | 2019 | 2098 |
| Hoplodrina ambigua | Ossby | 2019 | 980 |
| Hoplodrina ambigua | Utlangan | 2019 | 206 |
| Mythimna albipuncta | Nedre aleback | 2019 | 73 |
| Mythimna albipuncta | Ossby | 2019 | 40 |
| Mythimna albipuncta | Utlangan | 2019 | 24 |
| Hoplodrina ambigua | Nedre aleback | 2020 | 1000 |
| Hoplodrina ambigua | Ossby | 2020 | 128 |
| Hoplodrina ambigua | Utlangan | 2020 | 447 |
| Mythimna albipuncta | Nedre aleback | 2020 | 167 |
| Mythimna albipuncta | Ossby | 2020 | 10 |
| Mythimna albipuncta | Utlangan | 2020 | 50 |
| Hoplodrina ambigua | Nedre aleback | 2021 | 1553 |
| Hoplodrina ambigua | Ossby | 2021 | 575 |
| Hoplodrina ambigua | Utlangan | 2021 | 265 |
| Mythimna albipuncta | Nedre aleback | 2021 | 624 |
| Mythimna albipuncta | Ossby | 2021 | 284 |
| Mythimna albipuncta | Utlangan | 2021 | 112 |
| Hoplodrina ambigua | Nedre aleback | 2022 | 705 |
| Hoplodrina ambigua | Ossby | 2022 | 912 |
| Hoplodrina ambigua | Utlangan | 2022 | 143 |
| Mythimna albipuncta | Nedre aleback | 2022 | 1295 |
| Mythimna albipuncta | Ossby | 2022 | 500 |
| Mythimna albipuncta | Utlangan | 2022 | 142 |
| Hoplodrina ambigua | Nedre aleback | 2023 | 5137 |
| Hoplodrina ambigua | Ossby | 2023 | 1477 |
| Hoplodrina ambigua | Utlangan | 2023 | 323 |
| Mythimna albipuncta | Nedre aleback | 2023 | 4491 |
| Mythimna albipuncta | Ossby | 2023 | 1297 |
| Mythimna albipuncta | Utlangan | 2023 | 348 |