

Supplementary materials of:

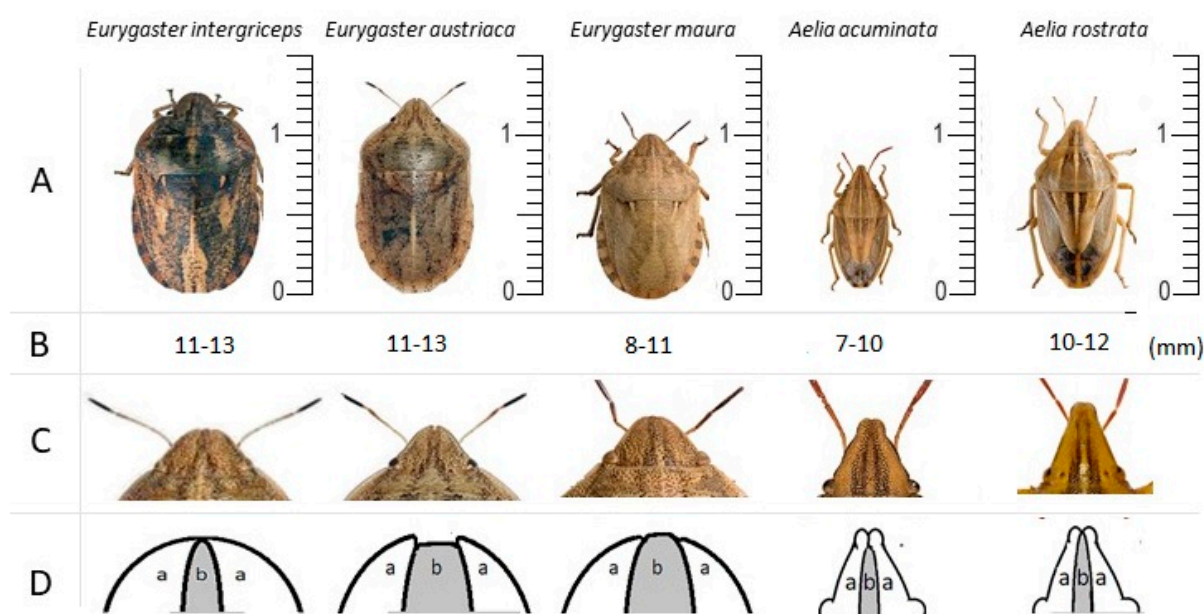
Topographical based significance of sap-sucking heteropteran in European wheat cultivations: a systematic review

Szilvia Gibicsár ^{1*}, Sándor Keszthelyi ¹

¹ Hungarian University of Agriculture and Life Sciences, Department of Agronomy, Kaposvár Campus, Kaposvár, S. Guba str. 40 H-7400, Hungary

* Correspondence: szilvia.gibicsar@gmail.com

Supplementary Figure S1



Supplementary Figure S1. The main morphological characters of adult cereal bugs. A-B shows the general appearance and body size, while C-D depicts the head of the imagoes. a: ganea; b: clypeus

Supplementary Table S1. Source data used to create Table S1.

1

Country/region	Area (km ²)	Wheat harvest area 2020 (km ²)	Percentage of harvested area (Wheat)	Relative Importance of Wheat production based on harvested area	<i>E. integriceps</i> presence	<i>E. austriaca</i> presence	<i>E. maura</i> presence	<i>A. acuminata</i> presence	<i>A. rostrata</i> presence	<i>E. integriceps</i> potential	<i>E. austriaca</i> potential	<i>E. maura</i> potential	<i>A. acuminata</i> potential	<i>A. rostrata</i> potential
Albania	28748	539,46	1,876513149	0,137140389	1	1	1	1	1	539,46	539,46	539,46	539,46	539,46
Austria	83858	2790,2	3,327291374	0,243166978	0	1	1	1	1	0	2790,2	2790,2	2790,2	2790,2
Belarus	207600	7227,11	3,481266859	0,254419901	1	1	1	1	1	7227,11	7227,11	7227,11	7227,11	7227,11
Belgium	30510	1946,6	6,380203212	0,466281597	0	1	1	1	0	0	1946,6	1946,6	1946,6	0
Bosnia-Herzegovina	51129	699,14	1,367404017	0,099933389	1	1	1	1	1	699,14	699,14	699,14	699,14	699,14
Bulgaria	110994	12001,8	10,81301692	0,79024298	1	1	1	1	1	12001,8	12001,8	12001,8	12001,8	12001,8
Croatia	56594	1478,4	2,612291056	0,190912923	1	1	1	1	1	1478,4	1478,4	1478,4	1478,4	1478,4
Czech Republic	78866	7985,8	10,12578297	0,740018162	0	1	1	1	1	0	7985,8	7985,8	7985,8	7985,8
Danish mainland	44493	5026	11,29615895	0,825552237	0	1	1	1	1	0	5026	5026	5026	5026
Estonia	45339	1680,4	3,706301418	0,270866003	0	0	1	1	0	0	0	1680,4	1680,4	0
Finland	338145	1988	0,587913469	0,042966223	0	0	1	1	0	0	0	1988	1988	0
French mainland	551695	45124,2	8,179193214	0,597756395	0	1	1	1	1	0	45124,2	45124,2	45124,2	45124,2
Germany	357386	28355	7,933998534	0,57983694	0	1	1	1	1	0	28355	28355	28355	28355
Greek mainland	131940	3558,8	2,697286645	0,197124619	1	1	1	1	1	3558,8	3558,8	3558,8	3558,8	3558,8
Hungary	93030	9366,2	10,06793507	0,73579049	0	1	1	1	1	0	9366,2	9366,2	9366,2	9366,2
Ireland	70273	469,9	0,668677871	0,048868692	0	0	1	0	0	0	0	469,9	0	0
Italian mainland	301338	17112,2	5,678739489	0,415016831	1	1	1	1	1	17112,2	17112,2	17112,2	17112,2	17112,2
Latvia	64589	4982	7,713387729	0,563714137	0	0	1	1	0	0	0	4982	4982	0
Lithuania	65300	8935,1	13,68315467	1	0	1	1	1	1	0	8935,1	8935,1	8935,1	8935,1
Luxembourg	2586	119,3	4,613302398	0,337151959	0	1	1	1	0	0	119,3	119,3	119,3	0
Moldova	33846	3003,41	8,873751699	0,648516509	1	1	1	1	1	3003,41	3003,41	3003,41	3003,41	3003,41

Montenegro	13812	7,63	0,055241819	0,004037214	no data	no data	no data	no data	no data	0	0	0	0	0
Netherlands	41198	1089,1	2,643574931	0,193199229	no data	no data	no data	no data	no data	0	0	0	0	0
North Macedonia	25713	697,65	2,713218994	0,198288995	1	1	1	1	1	697,65	697,65	697,65	697,65	697,65
Norwegian mainland	385178	800	0,207696182	0,015178969	0	0	0	1	0	0	0	0	800	0
Poland	312685	23733,1	7,590098662	0,554703856	0	1	1	1	1	0	23733,1	23733,1	23733,1	23733,1
Portuguese mainland	88416	301,4	0,340888527	0,024913007	0	1	1	1	1	0	301,4	301,4	301,4	301,4
Romania	238397	22816,9	9,570967755	0,699470845	1	1	1	1	1	22816,9	22816,9	22816,9	22816,9	22816,9
Russia (European)*	3995200	288643,12	7,224747697	0,528003072	1	1	1	1	1	288643,12	288643,1	288643,1	288643,12	288643,1
Serbia	88361	5811,28	6,57674766	0,480645569	1	1	1	1	1	5811,28	5811,28	5811,28	5811,28	5811,28
Slovakia	49036	3870,8	7,893792316	0,576898567	0	1	1	1	1	0	3870,8	3870,8	3870,8	3870,8
Slovenia	20273	272,8	1,345632122	0,098342243	0	1	1	1	1	0	272,8	272,8	272,8	272,8
Spanish mainland	498511	19146,6	3,840757777	0,280692418	0	1	1	1	1	0	19146,6	19146,6	19146,6	19146,6
Sweden	450295	4491,7	0,997501638	0,072899975	0	0	1	1	1	0	0	4491,7	4491,7	4491,7
Switzerland	41290	847,87	2,053451199	0,150071475	0	1	1	1	0	0	847,87	847,87	847,87	0
Ukraine	603628	65645	10,87507538	0,794778371	1	1	1	1	1	65645	65645	65645	65645	65645
United Kingdom of Great Britain and Northern Ireland	242495	13870	5,719705561	0,418010736	0	1	1	1	0	0	13870	13870	13870	0
Europe		616433,97			13	29	34	34	26	8013641,61	17876585	20958755	20958755	16027283

13,68315467

		<i>E. integriceps</i>	<i>E. austriaca</i>	<i>E. maura</i>	<i>A. acuminata</i>	<i>A. rostrata</i>
SUM		429234,27	600925,2	614537,2	614867,34	588633,2
RANKING		5	3	2	1	4

Area harvested: <https://www.fao.org/faostat/en/#data/QCL>*Russia 2019/20 Winter Grains: Highest Planted Area in 9 Years (https://ipad.fas.usda.gov/cropeexplorer/pecad_stories.aspx?regionid=rs&ftype=topstories)