



**PRELIMINARY DATA ON AUCHENORRHYNCHA FOOD PLANTS OF THE CZEŚTOCHOWA UPLAND  
(SOUTHERN POLAND)**

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The data on Auchenorrhyncha food plants in Poland, unlike those published recently on Germany (Nickel 2003), are far from complete. Smreczyński (1954) and Nast (1976) mainly provided records for arboricolous taxa, i.e. Macropsinae, Idiocerinae, Jassinae and Typhlocybinae, but there is still no information on the food preferences of the bulk of the leafhopper fauna.

The aim of the work was to determine Auchenorrhyncha guilds associated with the forbs and grasses, which are notable constituents of the sandy and limestone grasslands on the Cześćochowa Upland in Southern Poland. A survey started in 2004 and is continued in 2005 as well. Because of the sweep-netting, it was only possible to explore plants which are characterized by tufty growth or are easily distinguished from the surrounding habitat. Auchenorrhyncha were sampled six times during the vegetational season on 31 plant species belonging to the following families: Hypericaceae (1 species), Rosaceae (1), Fabaceae (3), Apiaceae (1), Asclepiadaceae (1), Rubiaceae (1), Dipsacaceae (1), Boraginaceae (1), Scrophulariaceae (1), Lamiaceae (6), Asteraceae (4) and Poaceae (10). An insect-plant relationship was treated as certain if there were at least 3 samples containing leafhopper species.

Altogether, the material collected in 2004 and 2005 included 1963 adults, comprising 45 species (Table 1). So far the investigations have not revealed Auchenorrhyncha relationship for the following plants: *Agrimonia eupatoria*, *Anthyllis vulneraria*, *Coronilla varia*, *Libanotis pirenaica*, *Scabiosa ochroleuca*, *Echium vulgare*, *Betonica officinalis*, *Achillea millefolium*, *Helichrysum arenarium* and *Briza media*. On the other hand, the highest number of species inhabited sheep's fescue *Festuca ovina* species group. These include *Acanthodelphax spinosa*, *Kosswigianella exigua*, *Doratura stylata*, *Graphocraerus ventralis*, *Rhopalopyx preysleri*, *Rhopalopyx vitripennis*, *Psammotettix confinis*, *Errastunus ocellaris*, *Turrutus socialis* and *Mocuellus collinus*. Most of the collected leafhoppers species showed consistent specificity to grasses (Poaceae). Additionally, two records of food plants are worthy of note: *Vincetoxicum hirundinaria* for *Fieberiella septentrionalis* and *Phleum phleoides* for *Arocephalus languidus*. Regarding the Auchenorrhyncha communities associated with the investigated sandy and limestone grasslands (Świerczewski, unpubl.) it can be argued that the abundance of food plants determines the distribution of at least some leafhopper species.

**References**

- Nast J. 1976. Piewiki. Auchenorrhyncha (Cicadodea). Catalogus faunae Poloniae, XXI (1). PWN, Warszawa: 256 pp.  
Nickel H. 2003. The Leafhoppers and Planthoppers of Germany (Hemiptera, Auchenorrhyncha): Patterns and strategies in a highly diverse group of phytophagous insects. Pensoft Publishers, Sofia-Moscow: 460pp.  
Smreczyński S. 1954. Materiały do fauny pluskwiaków (Hemiptera) Polski. Fragmenta Faunistica, 7: 1-146.

Table 1. List of collected Auchenorrhyncha species and their foodplants.

Auchenorrhyncha species	Food plant	<i>Hypericum perforatum</i>	<i>Trifolium arvense</i>	<i>Vincetoxicum hirsutinaria</i>	<i>Galium mollugo</i>	<i>Verbascum lychnitidis</i>	<i>Clinopodium vulgare</i>	<i>Salvia pratensis</i>	<i>Stachys recta</i>	<i>Thymus pulegioides</i>	<i>Thymus serpyllum</i>	<i>Artemisia campestris</i>	<i>Hieracium pilosella</i>	<i>Agrostis capillaris</i>	<i>Anthoxanthum odoratum</i>	<i>Arrhenatherum elatius</i>	<i>Brachypodium pinnatum</i>	<i>Calamagrostis epigejos</i>	<i>Corynephorus canescens</i>	<i>Dactylis glomerata</i>	<i>Festuca ovina</i> species group	<i>Phleum phleoides</i>
<i>Stenocranus major</i> (Kbm.)																7	3	3		4		
<i>Eurybregma nigrolineata</i> Scott																				7		
<i>Megadelphax sordidula</i> (Stål)																79						
<i>Mirabella albifrons</i> (Fieb.)																		1				
<i>Acanthodelphax spinosa</i> (Fieb.)																					8	
<i>Kosswigianella exigua</i> (Boh.)																					21	
<i>Javesella pellucida</i> (F.)																31						
<i>Ribautodelphax angulosa</i> (Rib.)															16							
<i>Ribautodelphax collina</i> (Boh.)														45								
<i>Ribautodelphax pungens</i> (Rib.)																	11					
<i>Cercopis sanguinolenta</i> (Scop.)					8																	
<i>Neophilaenus campestris</i> (Fall.)																					10	
<i>Neophilaenus minor</i> (Kbm.)																			130			
<i>Megophthalmus scanicus</i> (Fall.)		3																				
<i>Anaceratagallia ribauti</i> (Oss.)		3																				
<i>Aphrodes bicincta</i> (Schrk.)		3																				
<i>Planaphrodes trifasciata</i> (Geoffr.)											33											
<i>Erythria aureola</i> (Fall.)										42												
<i>Emelyanoviana mollicula</i> (Boh.)						84	60	3														
<i>Micantulina stigmatipennis</i> (M.&R.)						11																
<i>Chlorita dumosa</i> (Rib.)											26											
<i>Chlorita paolii</i> (Oss.)												61										
<i>Eupteryx notata</i> Curt.													25									
<i>Eupteryx stachydearum</i> (Hardy)								3														
<i>Zygina hyperici</i> (H.-S.)		88																				
<i>Nealiturus fenestratus</i> (H.-S.)													27									
<i>Nealiturus guttulatus</i> (Kbm.)													30									
<i>Balclutha calamagrostis</i> Oss.																		45				
<i>Doratura stylata</i> (Boh.)																					245	
<i>Fieberiella septentrionalis</i> W.Wg.				21																		
<i>Graphocraerus ventralis</i> (Fall.)																					14	
<i>Rhopalopyx preysleri</i> (H.-S.)																					17	
<i>Rhopalopyx vitripennis</i> (Fl.)																					10	
<i>Cicadula persimilis</i> (Edw.)																					4	
<i>Athysanus argentarius</i> Metc.																15		5		3		
<i>Laburrus impictifrons</i> (Boh.)												13										
<i>Arocephalus languidus</i> (Fl.)																						80
<i>Psamnotettix alienus</i> (Dhlb.)																			20			3
<i>Psamnotettix confinis</i> (Dhlb.)																			21		3	
<i>Psamnotettix excisus</i> (Mats.)																			164			
<i>Psamnotettix poecilus</i> (Fl.)																		1				
<i>Adarrus multinotatus</i> (Boh.)																	165					
<i>Errastunus ocellaris</i> (Fall.)																		3			4	
<i>Turrutus socialis</i> (Fl.)																79					93	
<i>Mocuellus collinus</i> (Boh.)																11					39	