The spider (Araneae) fauna of the shore of Lake Balaton, Hungary

By

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Abstract. A total of 171 species of spiders have been found on the shore of Lake Balaton (Hungary). Some of them are considered to be rare and four are new species to the fauna of Hungary.

Balaton is the largest and the most well-known lake of Hungary. In spite of this, faunistical data concerning the spider fauna near Lake Balaton are rather poor. To improve the situaton, the Limnological Research Insitute, Tihany (Hungary) organised research and extensive collecting works in this area in 1990—1994. Before this study, only few references to this area can be found (KOLOSVÁRY, 1928, 1931, 1933; BALOGH 1933). This study summarises the result of the investigations of five years (1990—1994). The surveys were done by IMRE LOKSA (1990—91), ISTVÁN LOKSA (1992) and KINGA SZATHMÁRY (1993—94).

Material and methods

Sampling was carried out at 15 sampling sites (Figure 1). Only four of them were along the southern shoreline because it is mostly covered with concrete. In most cases active collecting methods were used: singling, sweeping, the pealing off the barks, at some localities pitfall traps also set up. We have at least one data set per each season from all research sites.

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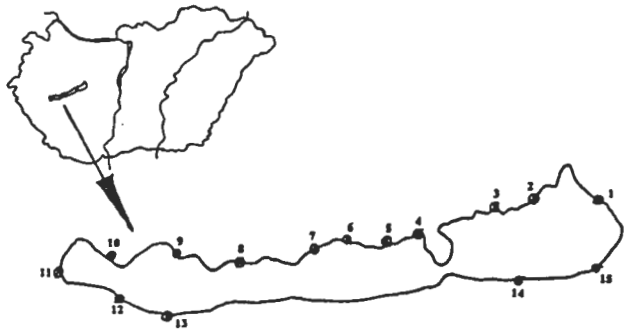

Fig. 1. Location of the sampling sites. 1: Balatonkenese, 2: Káptalanfüred - Alsóörs, 3: Paloznaki-bay, 4: Bozsai-bay, 5: Balatonudvari, 6: Balatonakali, 7: Balatonszepezd, 8: Ábrahámhegy, 9: Szigliget, 10: Balatongyörök, 11: Fenékpuszta, 12: Balatonberény, 13: Balatonfenyves, 14: Balatonszéplak-felső, 15: Balatonvilágos

Results

Altogether 171 spider speices were identified in the area. Four of them — *Cyclosa oculata, Micrargus laudatus, Walckenaeria (=Cornicularia) kochi and Walckenaeria (=Cornicularia) unicornis* — are new to the Hungarian fauna, five for the Balaton region and some rare species were also caugth. The results are summarized in Table 1.

The highest species diversity was found at Bozsai-bay — it is a large reedbelt — with 120 species, the lowest at Balatonszéplak-felső, a concrete-covered section of the shore with a small reed-spot, with 6 species. The new species to the Hungarian fauna, and the rare species are the following:

Haplodrassus signifer C. L. Koch

This species lives in sandy areas and prefers habitats with short vegetation. It was found at the willow hedge along the shoreline.

Pardosa prativaga C. L. Koch

This is a rare, euryhygric species with an irregular distribution. It was collected at Balatonakali, along the shore. It is the first occurrence of this species in the Balaton region.

Trochosa spinipalpis O.P.- Cambridge

This species is again new for the Balaton region, with an Arboreo-Mediterranean distribution. It is considered to live in wetlands and along shorelines.

Table 1. The spider fauna of the shore of Lake Balaton.

Bke = Balatonkenese, KAö = Káptalanfüred - Alsóörs, Pal = Paloznaki-bay, Bo = Bozsai-bay, Bu = Balatonudvari, Bak = Balatonakali, Bsze = Balatonszepezd, Ábr = Ábrahámhegy, Szig = Szigliget, Bgy = Balatongyörök, Fe = Fenékpuszta, Bb = Balatonberény, Bf = Balatonfenyves, Bszl = Balatonszéplak-felső, Bvi = Balatonvilágos

	Bke	KAö	Pal	Bo	Bu	Bak	Bsze	Ábr	Szig	Bgy	Fe	Bb	Bf	Bszl	Bvi
DICTYNIDAE															
Dictyna arundinacea Linné		•	•	•	•	•						•	•		
Dictyna flavescens Walckenaer			•												
Dictyna latens Fabricius				•											
Dictyna pusilla Thorell			•	•											
Dictyna uncinata Thorell	•	•	•	•		•	•	•		•					
Dictyna vindissima O. Müller			•	•		•	•								
Nigma walckenaeri Roewer					•	•					•	•			
Argenna grassipelpis Dahl			•	•											
DYSDERIDAE															
Harpactes rubicundus C.L. Koch			•	•								•			
Dysdera nihnii Canestrini					•							•			
ZODARIIDAE															
Zodarium sp. juv.			•												
GNAPHOSIDAE															
Drassodes pubescens Thorell				•											
Haplodrassus signifer C.L. Koch			•	•		•		•			•				
Zelotes apricorum L. Koch				•											
Zelotes praeficus L. Koch			•												
Zelotes pedestris C.L. Koch			•	•				•							
Micaria fulgens Walckenaer				•											
CLUBIONIDAE															
CLUBIONINAE															
Clubiona coerulescens L. Koch			•	•	•	•					•		•		
Clubiona compta C.L. Koch		•		•											
Clubiona diversa C.L. Koch				•							•	•	•		
Clubiona juvenis Simon		•						•							
Clubiona lutescens Westring					•	•				•		•	•		
Clubiona phragmitis C.L. Koch				•		•			•					•	•
Clubiona reclusa Lockel		•						•							
Clubiona stagnatilis Kulczynski				•									•		
Clubiona subtilis L. Koch			•												
Cheiracanthium effosum Herman			•	•											
Cheiracanthium erraticum Walckenaer			•	•											
Cheiracanthium punctorium Villers															
LIOCRANINAE															
Agraecina striata Kulczynski				•							•		•		
Agroeca brunnea Blackwall			•												
Agroeca pullata Thorell			•	•											
Phrurolithus festivus C.L. Koch											•	•			
ZORIDAE=CTENIDAE															
Zora spinimana Sundevall			•	•											
EUSPARASSIDAE															
Micrommata virescens Clerck			•	•							•	•	•		
THOMISIDAE															
MISUMENINAE															
Thomisus onustus Walckenaer				•	•	•					•	•	•		
Diaea dorsata Fabricius			•	•	•	•					•	•	•		
Heriaeus graminicola Doleschall		•		•	•	•		•			•	•	•		
Heriaeus savigny Simon				•											
Misumena vatia Clerck		•	•	•	•	•		•	•	•	•	•	•		
Misumenops tricuspidatus Fabricius		•	•	•		•				•					•
Runcinia lateralis C.L. Koch		•			•	•	•	•		•					
Xysticus kochi Thorell		•	•	•		•		•	•	•	•		•		
Xysticus ulmi Hahn				•				•		•					
Oxyptila atomaria Panzer				•								•	•		
Oxyptila blackwalli Simon				•											
Oxyptila praticola C.L. Koch			•	•		•	•								
Oxyptila simplex Cambridge				•											
PHILODROMIDAE															
Philodromus aureolus Clerck				•	•	•	•	•	•	•					•
Philodromus cespitum Walckenaer	•				•	•					•	•	•		
Philodromus dispar Walckenaer							•								
Philodromus fallax Sundevall						•									
Philodromus rufus Walckenaer	•	•							•						
Thanatus sp. juv.			•				•								
Tibellus maritimus Menge															•
Tibellus oblongus Walckenaer		•	•	•	•	•		•		•	•	•	•		•
SALTICIDAE															
Salticus scenicus Clerck															•
Heliophanus aeneus Hahn			•	•	•	•					•		•		
Heliophanus auratus C.L. Koch			•	•	•	•	•	•	•	•	•	•	•		
Heliophanus cupreus Walckenaer		•		•	•	•					•	•	•		
Heliophanus flavipes C.L. Koch															
Marpissa canestrini Can. et Pav.			•	•											
Marpissa nivoyi Lucas			•	•	•	•	•	•	•			•	•		
Marpissa radiata Grube		•													
Ballus depressus Walckenaer							•								
Euophrys petrensis C.L. Koch			•												
Euophrys frontalis Walckenaer			•	•											
Salticus floricola C.L. Koch			•												
Evarcha arcuata Clerck				•	•	•					•	•	•		
Myrmarachne formicaria Degeer	•		•	•		•	•				•		•		•
OXYOPIDAE															
Oxyopes heterophthalmus Latreille				•											
LYCOSIDAE															
Pardosa amentata Clerck			•	•											
Pardosa hortensis Thorell					•							•	•		
Pardosa lugubris Walckenaer				•	•	•					•	•	•		
Pardosa monticola Clerck				•											
Pardosa paludicola Clerck			•	•				•			•	•	•		
Pardosa palustris Linné			•	•	•					•	•	•	•		
Pardosa prativaga C.L. Koch		•				•				•					
Pardosa pullata Clerck				•	•	•						•	•		

	Bke	KAd	Pal	Bo	Bu	Bsk	Bsze	Abr	Szg	Bgy	Fe	Bb	Bf	Bsd	Bvl
Alopecosa pulverulenta Clerck			•	•											
Trochosa robusta Simon			•												
Trochosa spinipalpis Cambridge			•	•							•		•		
Trochosa terricola Thorell			•	•	•	•		•					•		
Arctosa maculata Hahn			•												
Pirata hygrophilus Thorell			•	•									•		
Pirata latitans Blackwall				•											
Pirata piscatorius Clerck				•		•									
Pirata piraticus Clerck						•		•			•	•			
Pirata tenuitarsis Simon						•									
PISAURIDAE															
Pisaura mirabilis Clerck		•	•	•	•	•	•	•			•	•	•	•	
Dolomedes fimbriatus Clerck				•				•							
ARGYRONETIDAE															
Argyroneta aquatica Clerck		•	•	•				•			•				
AGELENIDAE															
Agelena gracilens C.L. Koch		•	•	•		•									•
Agelena labyrinthica Clerck				•	•						•		•		
HAHNIIDAE															
Antistea elegans Blackwall			•	•				•							
Hahnia nava Blackwall				•											
MIMETIDAE															
Ero aphana Walckenaer				•			•								•
Ero furcata Villers					•						•			•	
THERIDIIDAE															•
Achaearanea sp.															
Theridion bimaculatum Linné				•											
Theridion pallens Blackwall				•							•	•			
Theridion pictum Walckenaer										•					
Theridion pinastri L. Koch	•														
Theridion sisyphum Clerck			•												
Theridion varians Hahn					•	•		•			•	•	•		
Enoplognatha ovata Clerck				•	•	•							•		
Enoplognatha schaufussi L. Koch		•													
Enoplognatha thoracica Hahn				•											
Robertus arundineti Cambridge			•	•							•				
Episinus truncatus Latreille				•											
TETRAGNATHIDAE															
Tetragnatha extensa Linné	•		•	•	•	•	•			•	•	•	•		
Tetragnatha dearmata Thorell				•		•				•		•	•		
Tetragnatha montana Lendl							•				•	•			
Tetragnatha pinicola L. Koch				•	•			•			•	•	•		
Pachygnatha clercki Sundewall				•									•		
Pachygnatha degeeri Sundewall			•	•	•	•					•	•	•		
Pachygnatha listeri Sundewall				•						•	•		•		
Meta mengei Blackwall										•					
Meta segmentata Clerck	•		•	•			•				•	•	•		
ARANEIDAE															
Gibbaranea bituberculata Walckenaer			•	•	•						•	•			
Agalenatea redii Scopoli			•	•											
Araneus bituberculatus Walckenaer															
Araneus diadematus Clerck			•	•			•		•	•	•		•		
Araneus marmoreus Clerck	•			•							•	•			
Araneus quadratus Clerck			•	•	•	•					•	•			
Larinioides cornutus Clerck	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Larinioides folium Schrank		•							•						
Larinioides patagiatus						•	•			•					
Larinioides sclopetarius Clerck				•							•		•		
Mangora acalypha Walckenaer	•		•				•								
Araniella cucurbitina Clerck			•	•	•	•					•			•	
Hypsosinga heri Hahn		•	•	•				•		•					
Singa hamata Olivier	•	•	•	•	•	•		•		•	•	•	•	•	•
Singa lucina Savigny et Audouin	•	•		•		•									
Singa nitidula C.L. Koch	•	•	•	•	•				•		•	•	•		
Zygiella atrica C.L. Koch															
Zilla diodia Walckenaer	•														
Cyclosa oculata Walckenaer				•		•		•							
Aragnosa bruennichi Scopoli			•	•							•		•		
LINYPHIIDAE															
LINYPHIINAE															
Micrargile variegata Blackwall				•	•	•					•		•		
Meioneta rurestris C.L. Koch			•	•											
Stemonyphantes lineatum Menge				•											
Bathyphantes pullatus Cambridge				•											
Bathyphantes nigrinus Westring			•	•											
Diplostyla concolor Wider			•	•								•			
Lepthyphantes tenuis Blackwall				•									•		
Phorroma conversum Westring											•				
Neriene clathrata Sundevall			•	•							•	•			
Linyphia hortensis Sundevall					•	•							•		
Linyphia pusilla Sundevall			•												
Linyphia triangularis Clerck			•	•	•	•	•	•			•		•		
Centromerus expertus Cambridge			•												
Donacochara speciosa Thorell	•							•							
ERIGONINAE															
Gongylidellum murcidum Simon			•	•											
Caracladus brevis Wider				•											
Diplocephalus permixtus Blackwall			•	•											
Tapinocyba insecta L. Koch			•	•											
Hematogmus sanguinolentus Walck.			•	•											
Trachyneta dentata Wider			•	•											
Gonatium corrabipes Cambridge			•	•											
Oedothorax apicatus Blackwall				•											
Oedothorax gibbosus Blackwall			•												
Micrargus herbigradus Blackwall				•											
Micrargus laudatus Cambridge				•											
Theo vagans Blackwall											•				
Walckenaeria antica Wider			•	•	•	•							•		
Walckenaeria kochi Cambridge				•											
Walckenaeria vigilax Blackwall			•												
Walckenaeria unicornis Cambridge				•											
Erigone dentipalpis Wider				•	•										
Erigone atra Blackwall			•	•											

Pirata tenuitarsis SIMON

This species is present throughout the Paleo- and Neoarctic regions except for Africa. As it is hygrophilic and avoids shadow, this species prefers marshy habitats. Its occurrence in Balatonakali is also a new record for the Balaton region.

Cyclosa oculata WALCKENAER

This species is distributed throughout the temperate regions of Europe and Asia. In Hungary, however, this is the first record; it was found in the reed vegetation of the Bozsai-bay.

Kaestneria pullata (=Batyphantes pullatus) O.P.-CAMBRIDGE

A rare species in Hungary with an European distribution. It always occurs near the water in wetlands and in reedy areas among the vegetation with helio- and hygrophil features. It was found in reed vegetation very near to the water in the Bozsai-bay.

Micrargus laudatus O.P.-CAMBRIDGE

A rare species with an unknown habitat preference. It was found in a temporarily water covered site near the Bozsai-bay. This is its first record for the Hungarian fauna.

Walckenaeria (=Cornicularia) kochi O.P.-CAMBRIDGE

A new species for Hungary. It has got a mainly Western European distribution and considered to be a hygrophilic species. It was collected from temporarily water covered sedge and reed vegetation near the Bozsai-bay.

Walckenaeria (=Cornicularia) unicornis O.P.-CAMBRIDGE

A new species in the Hungarian fauna, with an European distribution excluding Southern Europe. It was collected from reeds in the Bozsai-bay.

Diplostyla concolor WIDER

This species is new for the Balaton region, with a Central-European distribution, occurring in wet, shady habitats. It was found on reed fragments.

Donacochara speciosa THORELL

This species is strictly bound to reedy habitats and wetlands. Its distribution area contains Central-Europe. In Hungary it had been recorded at some other sites before, but not in the Balaton region.

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