

*Freshwater Pea Clams *Pisidium* C. Pfeiffer (Mollusca, Bivalvia) From The Alpine Areas of Bulgaria*

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Abstract. Distributional data for 3 *Pisidium* species was provided from 19 alpine lakes and 1 dam in Rila and Pirin Mts. (Bulgaria). Most widely distributed was *P. casertanum*. The species *P. globulare* and *P. obtusale* are new records to the area.

Keywords: Rila Mts., Pirin Mts., lakes, Bivalvia, distribution.

Introduction

High mountain massifs of Bulgaria representing an alpine environment are only the Rila and Pirin Mts. situated at the south-west part of the country. The Pea clams (genus *Pisidium* Pfeiffer, 1821) of these areas were poorly studied and only *Pisidium amnicum* (Müller, 1774), and *Pisidium casertanum* (Poli, 1791) were reported (ANGELOV, 2000).

Material and Methods

The material was collected in 75% ethanol between July and September in 1995, 1996, 1998, 2002 and 2005 by the second author. Pea clams were collected by sieving bottom substrate of 20 alpine lakes situated at Rila and Pirin Mts. between 1922 (Belmeken Dam) and 2438 (Tevno Vasilashko Lake) m a. s. l.

Species were determined by anatomical characters or shell morphology considering

KORNIUSHIN & HACKENBERG (2000), ZETTLER & GLÖER (2006), and a reference shell collection.

All specimens were deposited in the collection of D. Georgiev.

Results and Discussion

Following 3 species were found (number of localities correspond with those in Table 1):

- *Pisidium casertanum* (Poli, 1791): 6, 9, 10, 11, 12, 15, 16, 17, 18;

- *Pisidium globulare* Clessin, 1873: 1, 2, 13, 20;

- *Pisidium obtusale* (Lamarck, 1818): 5, 11, 19;

- *Pisidium* sp.: 4, 5, 7, 12, 13, 14.

In all 20 localities studied *Pisidium* species were found. Three species of Pea clams were registered at the area of the alpine lakes of Rila and Pirin Mts. from

which most widely distributed was *P. casertanum*. It was found in almost half of all localities studied (N = 9).

The *P. amnicum* was not re-collected from Rila and Pirin alpine zones.

The species *P. globulare* and *P. obtusale* are new records to the areas of both mountains. The species *P. globulare* was known only from one locality in Bulgaria at

the W Rhodopes Mts. before this study (HORSÁK, 2006).

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Table 1. Collection localities of the *Pisidium* species from Rila and Pirin Mts.

No	Date	Region	Locality	Coordinates	Altitude (m)
1	25.7.1995	Pirin Mts.	Chairsko Lake	N41 42 29.5 E23 27 35.6	2367
2	25.7.1995	Pirin Mts.	Golyamo Valyavishko Lake	N41 42 31.9 E23 29 00.7	2287
3	26.7.1995	Pirin Mts.	Popovo lake	N41 42 33.8 E23 30 27.1	2248
4	14.8.1995	Pirin Mts.	Gorno Vasilashko Lake	N41 44 19.9 E23 26 35.5	2223
5	14.8.1995	Pirin Mts.	Dolno Vasilashko Lake	N41 44 26.9 E23 27 00.5	2140
6	15.8.1995	Pirin Mts.	Tevno Vasilashko Lake	N41 43 56.3 E23 26 30.6	2438
7	15.8.1995	Pirin Mts.	Gorno Banderishko Lake	N41 44 05.7 E23 25 43.3	2322
8	22.7.1996	Pirin Mts.	Golyamo Gergyisko Lake	N41 44 47.5 E23 22 57.6	2305
9	22.7.1996	Pirin Mts.	Dolno Gergyisko Lake	N41 44 41.7 E23 22 24.9	2210
10	23.7.1996	Pirin Mts.	Sinanishko Lake	N41 43 52.7 E23 21 39.5	2197
11	16.7.1998	Rila Mts.	Bliznaka Lake	N42 12 08.7 E23 18 50.5	2251
12	16.7.1998	Rila Mts.	Trilistnika Lake	N42 12 20.1 E23 19 09.2	2226
13	17.7.1998	Rila Mts.	Dolnoto Lake	N42 12 43.5 E23 19 34.3	2103
14	17.7.1998	Rila Mts.	Skakavishko Lake	N42 12 54.6 E23 18 15.3	2171
15	11.9.2002	Rila Mts.	Gorno Ribno Lake	N42 06 29.8 E23 29 27.7	2237
16	11.9.2002	Rila Mts.	Dolno Ribno Lake	N42 07 05.5 E23 29 40.5	2208
17	12.9.2002	Rila Mts.	Vapsko Lake	N42 05 02.4 E23 30 55.6	2288
18	12.9.2002	Rila Mts.	Belishko (Suho) Lake	N42 04 19.3 E23 33 22.9	2044
19	13.9.2002	Rila Mts.	Marichini Ezera, Dolnoto Lake	N42 09 49.4 E23 35 46.2	2371
20	18.8.2005	Rila Mts.	Belmeken Dam	N42 09 08.7 E23 46 40.0	1922

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