size specimens prevailed. A successful distribution of *P. robustoides* in the Pļaviņas Reservoir is evidently. The success of *P. robustoides* in the Pļaviņas Reservoir can be based on its favourable habitats (very slow or stagnant and shallow near-shore waters with different substrates) and environmental conditions (eutrophication of reservoir).

The research project was supported by the national research program «The value and dynamic of Latvia's ecosystems under changing climate — EVIDEnT», project "Nonnative species distribution and impact on the Baltic Sea and freshwater ecosystems», subproject "Non-indigenous species distribution and impact on freshwater ecosystems».

## DIVING BEETLE CYBISTER LATERALIMARGINALIS DE GEER, 1774 DISTRIBUTION IN VARIOUS MICROHABITATS IN LAKE LIELAIS BALTEZERS, LATVIA

D. Poppela, A. Poppels, M. Kalnins

University of Latvia, Riga, Latvia, dpoppela@gmail.com

Diving water beetle *Cybister lateralimarginalis* De Geer, 1774 due to lack of knowledge about biology and ecology of this species, as well lack of data – species were considered to be rare locally spread in Latvia (Kalnins, 2003). First information about this species in Latvia was obtained from famous benthologist Olga Kachalova (Kachalova, 1960). This species at first was found in the Lake Rāznas, Eastern part of Latvia in the biotope formed by *Elodea canadensis* Michx. This species now is common for all territory of Latvia. But most of findings of *C. lateralimarginalis* are from Eastern part of Latvia – Latgale region.

Lake Lielais Baltezers is urban lake situated very close to Riga City and is under high anthropogenic pressure from small villages situated around the lake. More over Lake is connected by system of canals with Daugava river Estuary and Riga bay.

Data of *C. lateralimarginalis* were gathered in October 2015 and April 2016. Botle-trap with chicken meat bait inside was used for capturing diving beetle. Traps were emptied every 10 days and its content was fixed in 4 % solution of formaldehide. Overall, 80 samples were collected (20 samples in October 2015 and 60 samples in April 2016. Microhabitats in trap placement places were different between each other. Common reed (*Phragmites australis* (Cav.) Trin. Ex Steud.) were in almost sampling plots. Narrow-leaved cattail (*Typha angusti-folia* L.) were found often in lakeside trap placement locations. Also in number of plant species, lake bay location microhabitats were more poorly than lakeside trap location microhabitats. In both trap placement sites bottom consisted of

sludge. In lake trap placement site ground consisted of rough detritus while in bay places-fine detritus.

Together in October and April there were captured 12 beetles – eight diving beetles and five crawling water beetles. Three specimen of *C. lateralimarginalis* were captured in April 2016 of which two were males and one female.

It is possible to make conclusion that highest density of *C. lateralimarginalis* is characterized for microbiotopes with high diversity of macrophytes but this species was not found in microbiotopes with monodominant macrophytes.

At first *C. lateralimarginalis* is found in typical urban lake such as Lake Lielais Baltezers.

## ОЗЕРНАЯ ЛЯГУШКА (*PELOPHYLAX RIDIBUNDUS* PALLAS, 1771) — ЧУЖЕРОДНЫЙ ВИД В ВОДНЫХ ЭКОСИСТЕМАХ СРЕДНЕГО УРАЛА

В.Н. Большаков<sup>1</sup>, Н.Л. Иванова <sup>1,2</sup>

<sup>1</sup>Институт экологии растений и животных УрО РАН, <sup>2</sup>Уральский государственный аграрный университет, г. Екатеринбург, Россия, ivanova@ipae.uran.ru

Одним из чужеродных видов амфибий на Среднем Урале является озерная лягушка, которая в 70-е годы прошлого столетия случайно попала в водохранилища-охладители Верхне-Тагильской и Рефтинской тепловых станций (Топоркова и др., 1979; Иванова, 1995). Pelophylax ridibundus (Pallas, 1771) относится к комплексу европейских зеленых лягушек, которые ведут полуводный образ жизни. Этот вид распространен по всей Европе, проникая в Азию, доходит до оз. Балхаш, а его северная граница почти совпадает с южной границей таежной зоны. Озерная лягушка толерантна к высоким концентрациям растворенных в воде солей, устойчива к высоким температурам (Мисюра, 1989; Большаков, Иванова, 2013). Источником интродукции данного вида послужили озерные лягушки из водоемов Краснодарского края и Одесской области (такой же гаплотип по гену ND3, как у среднеуральских лягушек, найден в этих регионах).

Непосредственно при обнаружении озерных лягушек в водоемах Свердловской области вид был включен в Красную Книгу Среднего Урала 1996 г. Как показали наши наблюдения, условия существования в водоемах оказались благоприятными для озерных лягушек, поэтому их ареал постепенно расширяется, в настоящее время они занимают значительную площадь, расселившись от места первоначального выпуска на десятки километров. Из Верхне-Тагильского водохранилища они проникли в р. Вогулку и Вогульское водохранилище, по р. Тагил до г. Ниж-