First record of introduction of the tropical snail *Melanoides tuberculata* (O. F. Müller, 1774) in Bulgaria (Gastropoda: Thiaridae)

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The freshwater tropical snail *Melanoides tuberculata* (O. F. Müller, 1774) or red-rimmed melania is native to northern Africa and southern Asia, but it has been accidentally introduced in many other tropical and subtropical areas worldwide. *M. tuberculata* is both parthenogenic and ovoviparous so this makes it well adapted for invasion of new habitats (Appleton \textit{et al.} 2009). It is often kept in aquaria and has also been accidentally introduced to thermal springs in colder parts of the world in the temperate zone (Glöer 2015).

Figure 1. The collection locality of *Melanoides tuberculata* – the thermal stream near Pancherevo Dam
M. tuberculata was never recorded in Bulgarian hot springs areas but was found in neighboring Serbia (Milenković & Gligorijević 2012).

Our short note reports the first record of this species in a thermal spring in Bulgaria. On September 2015 the first author found a large amount of shells of M tuberculata at a thermal stream near Pancherevo Dam, close to the south part of Sofia city, N42.605297 E23.403451, 589 m alt. (Fig. 1, 2). On January 2016 he managed to collect and some living snails from the bottom of the same stream.

Even this species could not spread in cold waters and its populations in temperate zones are restricted only at the areas of the hot springs, this could affect negatively the endemic hydrobiid snails if occur there. So introduction of the red-rimmed melania has to be avoided especially in such areas.

![Figure 2. Shells of Melanoides tuberculata found at the thermal stream near Pancherevo. Scale bar 10 mm](image)

**References**

