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Aeshna viridis Eversmann, 1836 (Odonata: Aeshnidae) is not yet a member of the dragonfly fauna of the Czech Republic

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Abstract
The finding of one larva and one larval exuvia of *Aeshna viridis* Eversmann, 1836 were published from the Czech Republic at the locality of Černé Lake in the Bohemian Forest in 2012. Revision of the voucher material proved misidentification and the specimens belong to the species *Aeshna cyanea* (O. F. Müller, 1764). Based on this fact, *Aeshna viridis* is not yet a member of the dragonfly fauna of the Czech Republic.

Key words: Aeshna viridis, Aeshnidae, Odonata, misidentification, faunistics, Czech Republic

Introduction

Aeshna viridis Eversmann, 1836 is the West Siberian faunal element with the West Palearctic distribution (Bernard et al. 2009). *A. viridis* inhabits standing and slow-flowing waters, obligatory with plant species *Stratiotes aloides*. However, the occurrence of *S. aloides* is not sufficient for presence of *A. viridis* (Bernard et al. 2009). It is known from Austria, Belarus, Croatia, Denmark, Estonia, Finland, Germany, Hungary, Latvia, Lithuania, the Netherlands, Poland, Russia, Slovenia, Sweden, and the Ukraine (Askew 2004, Dijkstra & Lewington 2006, Boudot et al. 2009). From central Europe is not known from the Czech Republic and Slovakia (Jeziorski 1998a, Bulánková 2003, Jeziorski & Holuša 2012). *A. viridis* was mistakenly recorded by Perutík (1957) from the Czech Republic in the past on the basis of misidentification of *A. cyanea* (Jeziorski 1998b). The second record of this species was published by Soldán et al. (2012).

Materials and methods

All the material (larva and larval exuvia stored in alcohol) was revised and identified by the author using the key by Askew (2004).

The following abbreviations and explanations are used in the text: coll. – collection, det. – identified by, leg. – collected by, NNR – National Nature Reserve, redet. – identification reidentified, revid. – identification revised; Bohemian Forest – Šumava Mts., Černé Lake – Černé jezero (in Czech).

The code number of the field in the faunistic grid mapping system of the Czech Republic is according to Pruner & Míka (1996).

Result and discussion

Aeshna viridis Eversmann, 1836

Material examined – Czech Republic, Bohemia mer., Šumava Mts., *Železná Ruda*, NNR Černé and Čertovo Lake, in an outlet of Černé Lake (49.1815131N, 13.1867897E, 6845), 1008 m a.s.l., 16 May 2007, 1 larva and 1 larval exuvia, leg. et det. T. Senoo, as *Aeshna viridis* Eversmann, 1836, redet. P. Jeziorski, 2014, as *Aeshna cyanea* (O. F. Müller, 1764), coll. National Museum, Prague, Czech Republic.

Note – The voucher material (larva and larval exuvia) was identified as *A. cyanea* according to the key (Askew 2004). The length of the pre-final stadium larva was 36 mm and the length of the larval exuvia was 36 mm. Both the larva and larval exuvia had prementum more than twice as long as its maximum width and distal margin of epiproct is bifid, while larvae of *A. viridis* and *A. juncea* have prementum less than twice as long as wide and distal margin of epiproct is trifid.

Soldán et al. (2012) published the occurence of *A. viridis* in the Czech Republic on the basis of the data from the master thesis (Senoo 2009) but they had no possibility to see and revise the voucher material (Vrba, pers. comm.). This finding was partially questioned in the discussion; however, *A. viridis* still has been listed in the tables, lists etc. (Soldán et al. 2012). The voucher material includes one pre-final larva and one larval exuvia. The material was revised and it was found out that it belonged to the species *Aeshna cyanea*. This eurytopic species breeds in standing and slow-flowing waters and is very common in the Bohemian Forest, including all glacial lakes (Soldán et al. 2012). It is very likely that the larvae have been flushed down from lake to the outlet. Finding of *A. cyanea* in an outlet of Černé Lake was also published by Soldán et al. (2012) and also corresponds to the demands and tolerance of larvae.

Based on the above facts, I do not consider the species *A. viridis* as a member of the dragonfly fauna of the Czech Republic. At present, I recommend that it should be deleted from the checklist and considered only as a species potentially possible. In the Czech Republic, *A. viridis* can be expected especially in the lower elevations in the northern parts of our territory, because the closest contiguous area of the species is located mainly in Poland (Bernard et al. 2009).

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