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Anax nigrofasciatus Oguma, 1915 (Odonata, Aeschnidae): A new addition to the fauna of Russia

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Abstract. *Anax nigrofasciatus* Oguma, 1915 is a large aeshnid species found in South, South East and East Asia. On 19 June 2021, its mature male was caught by E. Emelyanov in Nadezhdino District of Primorskiy Kray, Russia, at an artificial fire pond near the Sadko Garden Non-Commercial Fellowship (43.4171 N, 131.9327 E). This is the first record of this species in the Russian Federation, increasing the number of Odonata species currently known from Russia to 157.

Keywords: Odonata, dragonflies, *Anax nigrofasciatus*, fauna, first record, Russia, Primorsky Krai.

Anax nigrofasciatus Oguma, 1915 (Odonata, Aeschnidae) — новый вид для фауны России

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Аннотация. *Anax nigrofasciatus* Oguma, 1915 – крупный вид коромысел, распространенный в Восточной, Юго-Восточной и Восточной Азии. 19 июня 2021 года зрелый самец данного вида был пойман Е. Емельяновым в Надеждинском р-не Приморского края в окрестностях СНТ «Садко» на искусственном пожарном водоеме (43.4171 N, 131.9327 E). Это первая находка данного вида в Российской Федерации. Фауна России с учетом новой находки на данный момент составляет 157 видов стрекоз.

Ключевые слова: Odonata, стрекозы, *Anax nigrofasciatus*, фауна, первая находка, России, Приморский край.

According to the most recent published data (Onishko, Kosterin 2021), 156 Odonata species have been registered in the territory of the Russian Federation. In 2021, one more (*Anax nigrofasciatus* Oguma, 1915) was found in Nadezhdino District of Prikorskiy Kray.

Anax nigrofasciatus Oguma, 1915

Material. 1♂ (photographed in hand and released), Russia, Primorskiy Kray, Nadezhdino District, near the Sadko Garden Non-Commercial Fellowship, 43.4171 N, 131.9327 E, E. G. Emelyanov.

Habitat and observation. At ca 16:30 on 19 June 2021, a mature male was caught and photographed by E. G. Emelyanov at a small (9 × 9 m) artificial fire pond devoid of aquatic vegetation, with very scarce riparian vegetation and quite steep banks (Fig. 1). The male exhibited territorial behaviour, ranging at 2–2.5 m above the water surface along the banks and sometimes crossing the pond diagonally. The weather was sunny but with unevenly strong wind and an ongoing heavy thunderstorm front. Other Odonata at the

pond were represented by *Coenagrion johanssonii*, *Cordulia aenea amurensis* and *Pantala flavescens*. Further search of this species there at later dates provided no result.

Discussion

The individual found in Primorye surely belongs to the nominotypical subspecies *A. nigrofasciatus nigrofasciatus* Oguma, 1915 because of the broad black stripes along the thoracic seams (Fig. 2) as well as for geographical reasons.

Anax nigrofasciatus is a robust dragonfly able of flying for huge distances, so it may be re-presented in Russia by rare strays as well as be a persistent but very scarce constituent of the Russian Fauna, maybe penetrating to its extreme south-east only recently. Active expansion of southern species of Odonata in the context of warming climate has been observed in Russia in recent decades (Kosterin 2007; Mali-kova 2010; Skvortsov 2010; Onishko 2014; 2018; Malikova, Streltsov 2015; Malikova, Kosterin 2019; Onishko, Kosterin 2021), so appearance of species that are new



Fig. 1. The fire pond near the Sadko Garden Fellowship where *Anax nigrofasciatus* was found on 19 June 2021

Рис. 1. Пожарный пруд возле садового товарищества «Садко», где 19.06.2021 был найден *Anax nigrofasciatus*



Fig. 2. The male of *Anax nigrofasciatus* captured at the Sadko Garden Fellowship

Рис. 2. Самец *Anax nigrofasciatus*, пойманный в окрестностях садового товарищества «Садко»

for the country in the southernmost Far East is expectable. Unfortunately, the neighbouring regions of North Korea and China so far remain very poorly studied odonatologically. The Democratic People's Republic of Korea is a highly closed country with very scarce published data (e.g., Seehausen, Fiebig 2012), while north-eastern China is poorly studied by local odonatologists in comparison with the south of this country. The finding *A. nigrofasciatus* closest to our borders is indicated at about the centre of North Korea on the distribution map in the book by Kim et al. (2020). Curiously, the same book indicates some North Kore-

an findings of a number of species unknown from Russia which are situated even closer to its territory; these are: *Indolestes peregrinus* (Ris, 1916), *Lamelligomphus ringens* (Needham, 1930), *Epithea marginata* (Selys, 1883), *Orthetrum lineostigma* (Selys, 1886) and *O. internum* McLachlan, 1984. The here reported finding of *A. nigrofasciatus* in Primorye makes them likely to be found there as well.

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