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**FINDING OF THE GOLDEN GOBY  
*Gobius xanthocephalus* (GOBIIDAE)  
OFF THE SOUTHEASTERN COAST OF CRIMEA (THE BLACK SEA)**

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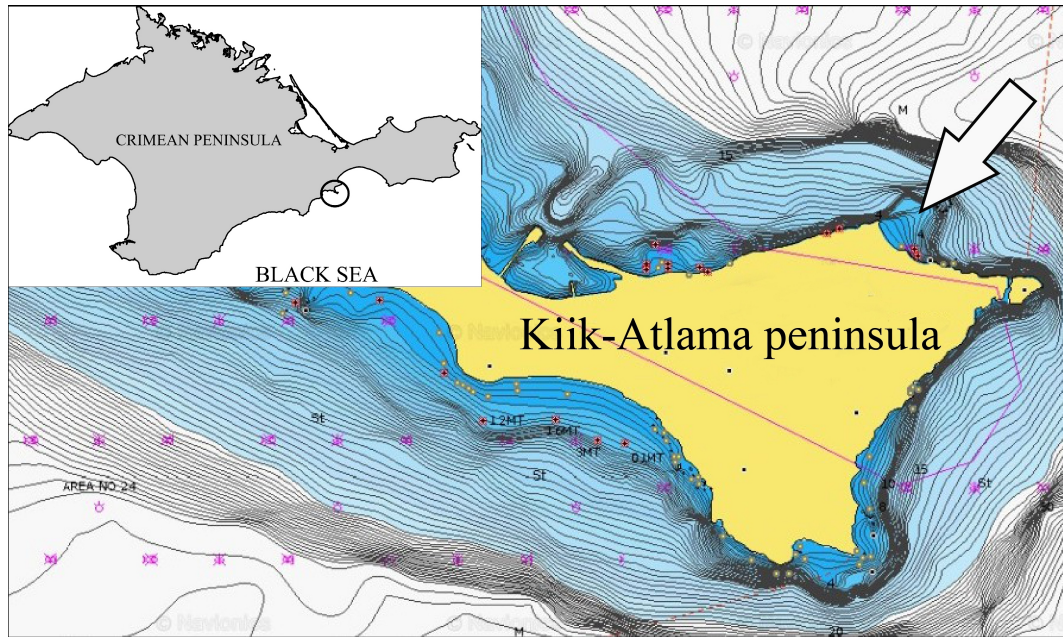
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Information is given on the finding of the golden goby *Gobius xanthocephalus* Heymer & Zander, 1992 (Gobiidae, Perciformes) off the southeastern coast of Crimea (the Black Sea), where this species was not previously recorded. An individual was registered during underwater ichthyological studies in the Dvuyakornaya Bay water area, in the vicinity of the northeastern tip of the Kiik-Atlama Peninsula (44°57'N, 35°23'E). The golden goby was recorded at a depth of 8.5 m at the foot of the underwater part of the rocky slope, in a shaded niche among a cluster of boulders. The finding of this species in the Southeastern Crimea indicates the expansion of its range in polyhaline water areas of the northern Black Sea.

**Keywords:** range, Dvuyakornaya Bay, Kiik-Atlama Peninsula

The golden goby *Gobius xanthocephalus* Heymer & Zander, 1992 (Gobiidae, Perciformes) is a representative of the East Atlantic–Mediterranean faunistic complex [Manilo, 2014; Manilo et al., 2013]. This fish is distributed in the Eastern Atlantic along the coast of Portugal and the Canary Islands. In the Mediterranean Sea, it is common off the coast of France [Manilo, 2014]. In the Black Sea, the golden goby was recorded for the first time in 1967 in the Kruglaya Bay water area (Sevastopol); there, 6 individuals were caught. Initially, this species was mistakenly identified as *Cabotia schmidti* de Buen, 1930; then, as *Gobius auratus* Risso, 1810 [Gordina, 1976]. Later, a reidentification showed that those individuals belong to the species *Gobius xanthocephalus* [Boltachev et al., 2009; Vasilyeva, Bogorodskii, 2004]. Subsequently, the golden goby was found in the Black Sea off the southeastern [Karpova, Saksaganskii, 2011] and western [Boltachev et al., 2009; Manilo et al., 2013] coast of Crimea, as well as off the coast of the Caucasus in the vicinity of Abkhazia [Vasilyeva, Bogorodskii, 2004]. In the waters of the Southeastern Crimea, this species has not been previously registered.

On 14 August, 2020, in the Dvuyakornaya Bay water area, in the vicinity of the northeastern tip of the Kiik-Atlama Peninsula (44°57'N, 35°23'E) (Fig. 1), during underwater ichthyological observations, we detected a single individual of this species. The golden goby was found at a depth of 8.5 m at the foot of the underwater part of the rocky slope, in a shaded niche among a cluster of boulders. The inner area of the niche was covered with sand and shells of large mussels; on the periphery, there were boulders with sparse vegetation.



**Fig. 1.** Spot of finding (marked with →) of the golden goby *Gobius xanthocephalus* in the Southeastern Crimea

The golden goby is characterized by a bright color distinguishing it from other gobies in the area. This fact served as the basis for initial underwater species identification of the individual and for subsequent analysis of the photos taken. The general color background of the fish is pale yellow, lighter on the belly. Along the entire body, there are narrow longitudinal stripes formed by small, dotted, reddish spots. The head to its back is golden yellow. Two parallel red stripes run along the eyes: the first one along the upper vertical of the eye, while the second one through the pupil. There is a V-shaped strip from the anterior vertical of the eye to the middle of the upper jaw. The pectoral fins are transparent, with black spots at the base. On the dorsal fins, the spots form parallel dashed lines. The anal and caudal fins are bluish at their base (Fig. 2). In general, the coloration of the individual corresponds to that described earlier [Manilo, 2014; Vasil'eva, 2007; Villegas-Ríos, Bañón, 2010].



**Fig. 2.** The golden goby *Gobius xanthocephalus*; the Dvuyakornaya Bay, the Kiik-Atlama Peninsula (original photo by P. Donchik)

The fish stayed near the bottom and moved in short and sharp movements. While the diver was taking photos, the golden goby was very cautious not to let him get close. As the diver approached, the fish gradually disappeared into the inner area of the niche.

Based on the fact of the golden goby finding off the southeastern coast of Crimea, one can conclude on the expansion of the range of this species in polyhaline water areas of the northern Black Sea.

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## REFERENCES

1. Boltachev A. R., Karpova E. P., Daniilyuk O. N. Findings of new and rare fish species in the coastal zone of the Crimea (the Black Sea). *Voprosy ikhtiologii*, 2009, vol. 49, no. 3, pp. 318–332. (in Russ.)
2. Vasil'eva E. D. *Ryby Chernogo morya. Opre-delitel' morskikh, solonovatovodnykh, evrigalinykh i prokhodnykh vidov s tsvetnymi illyustratsiyami, sobrannymi S. V. Bogorodskim*. Moscow : VNIRO, 2007, 238 p. (in Russ.)
3. Vasilyeva E. D., Bogorodskii S. V. Two new species of gobies (Gobiidae) in the ichthyofauna of the Black Sea. *Voprosy ikhtiologii*, 2004, vol. 44, no. 5, pp. 599–606. (in Russ.)
4. Gordina A. D. Raspredelenie i sezonnye izmeneniya chislennosti vzroslykh ryb v zaroslevykh biotsenozakh Chernogo morya. *Biologiya morya*, 1976, iss. 39, pp. 78–92. (in Russ.). <https://repository.marine-research.ru/handle/299011/2153>
5. Karpova E. P., Saksaganskii V. V. Raspredelenie ryb semeistva bychkovykh (Gobiidae) u chernomorskogo poberezh'ya Kryma. In: *Suchasni problemy teoretychnoi ta praktychnoi ikhtiolohii : tezy IV Mizhnar. ikhtiol. nauk.-prakt. konf.*, Odesa, 7–11 September, 2011. Odesa : Odes'k. nats. un-t im. I. I. Mecnikova, 2011, pp. 117–118. (in Russ.)
6. Manilo L. G. *Ryby semeistva Bychkovye (Perciformes, Gobiidae) morskikh i solonovatykh vod Ukrainy*. Kyiv : Naukova dumka, 2014, 243 p. (in Russ.)
7. Manilo L. G., Boltachev A. R., Karpova E. P. Gobiidae invasive species of the Crimean marine waters. *Zbirnyk prats Zoolohichnoho muzeiu*, 2013, no. 44, pp. 50–69. (in Russ.)
8. Villegas-Ríos D., Bañón R. First record and new meristic data of *Gobius xanthocephalus* (Gobiidae) from Galician waters (NW Spain). *Cybium*, 2010, vol. 34, no. 3, pp. 311–314. <https://doi.org/10.26028/cybium/2010-343-010>

**ОБНАРУЖЕНИЕ ЗОЛОТИСТОГО БЫЧКА  
*GOBIUS XANTHOCEPHALUS* (GOBIIDAE)  
В РАЙОНЕ ЮГО-ВОСТОЧНОГО ПОБЕРЕЖЬЯ КРЫМА  
(ЧЁРНОЕ МОРЕ)**

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Приведены сведения об обнаружении золотистого бычка *Gobius xanthocephalus* Neumer & Zander, 1992 (Gobiidae, Perciformes) в районе юго-восточного побережья Крыма (Чёрное море), где ранее данный вид не находили. Особь этого вида отмечена при проведении подводных ихтиологических исследований в акватории Двужорной бухты, у северо-восточной оконечности полуострова Киик-Атлама (44°57' с. ш., 35°23' в. д.). Бычок зарегистрирован на глубине 8,5 м у подножия подводной части скалистого склона, в затенённой нише среди скопления глыб. Обнаружение золотистого бычка в районе Юго-Восточного Крыма свидетельствует о расширении его ареала в полигалинных акваториях северной части Чёрного моря.

**Ключевые слова:** ареал, Двужорная бухта, полуостров Киик-Атлама