*Lauterbornia* 55: 141-144, D-86424 Dinkelscherben, 2005-08-19

# The Whitefin gudgeon *Romanogobio belingi* new for The Netherlands

D. M. Soes, P. J. Spaans and P.Veenvliet

With 2 figures

**Keywords:** Romanogobio, Pisces, Waal, Rhine, The Netherlands, first record
**Schlagwörter:** Romanogobio, Pisces, Waal, Rhein, Niederlande, Erstfund

**The whitefin gudgeon *Romanogobia belingi* (Lukasch, 1933) is recorded for he first time from The Netherlands**

## 1 Introduction

In the past years the fish fauna of the Dutch rivers belonging to the River Rhine system has been altered significantly. Species introduced to the Rhine system, such as Vimba (*Vimba vimba*), Asp (*Aspius aspius*) and Danube bream (*Abramis sapa*) are nowadays found in the Dutch waters (De Nie, 1996; Freyhof, *et al.*, 2000; Van Emmerik, 2003). One Danubian species, the Tubenose goby (*Proterorhinus marmoratus*), invaded the River Rhine system via the Main-Danube-Canal and made it up to the Netherlands (Winter, 2002). Several other species of gobies are thought to follow (Freyhof, 2003).

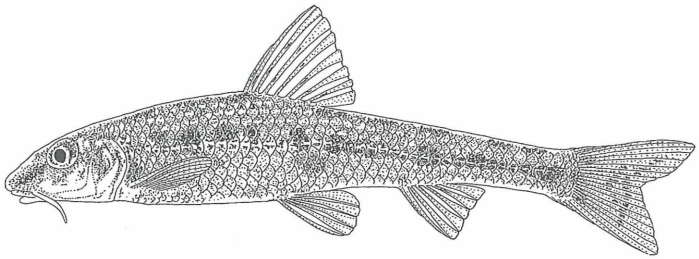
Already in 1998, Freyhof reported on another species in the River Rhine, which could be expected to occur in the Netherlands. This species, the Whitefin gudgeon (*Romanogobio belingi* (Lukasch, 1933), was found to be common and widespread in German parts of the River Rhine. Although attention to the possible occurrence of this species in the Netherlands had been given (Anonymous, 2001), no records of this species were known until 2004. This is especially remarkable as this species is actually quite likely to be a native species (Freyhof *et al.*, 2000).

## 2 The record (Fig. 1, 2)

On June 12, 2004 a adult Whitefin Gudgeon was caught by P. Spaans in the River Waal near Ochten. The River Waal is part of the River Rhine System. It was caught with a ledger rod in relatively fast flowing water close to the main current.

Identification as a Whitefin Gudgeon was based on the following characters (Balon et al., 1988; Freyhof, 1998):

1. The body was rather slim and the tail was laterally less compressed, in comparison to the Gudgeon (*Gobio gobio*).
2. The pigment spots in the dorsal and tail fin were inconspicuous. These spots are usually prominent in the Gudgeon.
3. The barbs were long, almost reaching the posterior edge of the eyes. In the Gudgeon the barbs reach only halfway the eyes.
4. The anus was situated somewhat closer to the base of the pelvic fins than to the anal fins. In the Gudgeon the anus is situated in the middle of the pelvic and the anal fins.



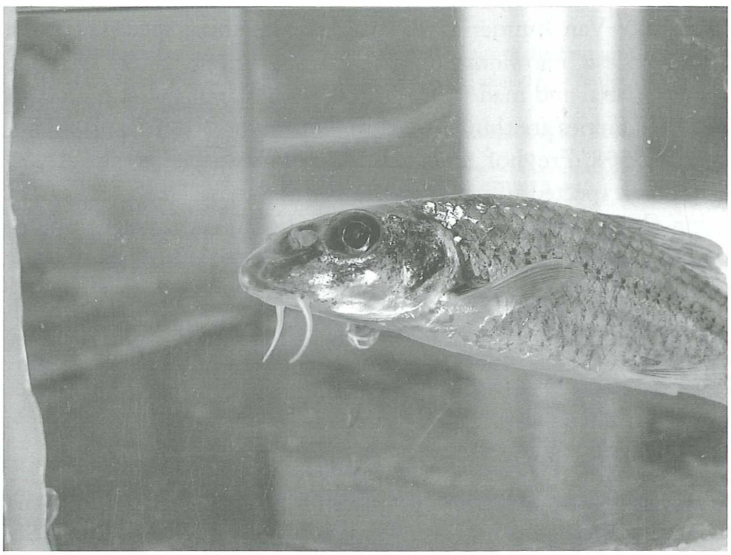


**Fig. 1: *Romanogobio belingi*, original drawing after the specimen from Ochten, The Netherlands by P. Veenvliet**
**Fig. 2: *Romanogobio belingi*, photo taken from the specimen from Ochten, The Netherlands**

## 3 Discussion

Why has it taken as much as six years since the paper by Freyhof (1998) for the first record of the Whitefin gudgeon to be established for the Netherlands. In the past, relatively little attention has been paid to the smaller fish species, but this has changed in more recent years. The most likely explanation is the absence of clear descriptions of the species in the more easily accessible literature. Especially the character of the spots in the dorsal and tail fin is likely to have caused confusion. Although the spots are inconspicuous, they are clearly visible when the fins are examined closely. This misinterpretation of spots may have led to assigning actual Whitefin gudgeons to the closely related Gudgeon. In addition, the common gudgeon is a rather variable species which adapts its colour to the background. Because of this some Gudgeons appear to have a tail-fin pattern that is similar to that of the Whitefin gudgeon (Balon *et al.*, 1988). A wider use of characters such as listed above might help to improve proper identification of the species and will hopefully lead to better understanding of the occurrence of the Whitefin gudgeon in the Netherlands.

Further confusion could arise from the fact that both genus and species name of the Whitefin gudgeon has been altered. Until recently the species was known as *Gobio albipinnatus* (e.g. Freyhof, 1998; Freyhof et al., 2000; Anonymous, 2001). As a result of a revision and changing taxonomic views, this name was changed to *Romanogobio belingi* (Naseka, 2001; Naseka & Freyhof, 2004).

### Acknowledgements

J. Freyhof is thanked for being helpful with providing literature. Karen Krijgsveld is thanked for reviewing the paper.

### References

Anonymous (2001): Witvingrondel mogelijk inheems in Maas en Rijn.- OVB-Bericht 2001 (2): 14, Nieuwegein(in Dutch)

Balon, E. K., S. S. Crawford & A. Lelek (1988): Is the occurrence of Gobio albipinnatus Lukasch 1933 in the upper Danube a result of upriver invasion or sympatric speciation?- Senckenbergiana biologica 68: 275-299, Frankfurt a.M.

Bischoff, A., J. Freyhof & S. Staas (1998): Nachweise des Zobels Abramis sapa (Pallas 1811) (Teleostei: Cyprinidae) im Rhein.- Lauterbornia 33: 5-8, Dinkelscherben

Emmerik, W. A. M. van (2003): Indeling van de vissoorten van de Nederlandse binnenwateren in ecologische gilden en in hoofdgroepen.- OVB literatuuronderzoeksrapport projectnummer OND00160. 81p. (OVB), Nieuwegein (in Dutch)

Freyhof, J. (1998): Erste Nachweise des Weißflossengründlings Gobio albipinnatus Lukasch, 1933, im Rhein.- LÖBF-Mitteilungen 98(3): 75-77, Recklinghausen

Freyhof, J. (1999): Records of Vimba vimba (Teleostei, Cyprinidae) in the River Rhine and its tributaries.- Folia Zoologica 48: 315-320, Brno

Freyhof, J., M. Scholten, A. Bischoff, J. Wanzenböck, S. Staas and C. Wolter (2000): Extensions to the known range of the whitefin gudgeon in Europe and biogeographical implications.- Journal of Fish Biology 57: 1339-1342, London

Freyhof, J. (2003): Immigration and potential impacts of invasive freshwater fishes in Germany.- Berichte des IGB 17: 51-58, Berlin

Naseka, A. M. (2001): Contributions to the knowledge of infraspecificstructure of whitefin gudgeon, Romanogobio albipinnatus (Lukasch, 1933) (Cyprinidae: Gobioninae), with a description of a new subspecies, R. albipinnatus tanaiticus, from the Don Drainage.- Proceedings of the Zoological Institute 287: 99-119, St. Petersburg

Naseka, A. M. & J. Freyhof (2004): Rheogobio parvus, a new gudgeon from River Kuban, southern Russia (Cyprinidae, Gobioninae).- Ichthyological Exploration of Freshwaters 15:17-23, München

Nie, H. W. de (1996): Atlas van de Nederlandse Zoetwatervissen.- 151 pp. (Media Publishing), Doetinchem (in Dutch)

Winter, E. (2002): Nieuwe vissoort in Nederlandse rivieren: de Marmergrondel.- OVB-Bericht 22(2): 16, Nieuwegein (in Dutch)

*Addresses of the authors*: D. M. Soes, Bureau Waardenburg, P.O. Box 365, NL-4100 A J Culemborg, The Netherlands, d.m.soes@buwa.nl

P. J. Spaans, Rooseveltweg 212, 6707 GS Wageningen, pietspaans211@zonnet.nl

P. Veenvliet, Metulje 9, 1385 Nova vas, Slovenia, paul.veenvliet@zavod-symbiosis.si

*Received*: 2005-02-03