

Scientific note

The threatened wolf spider *Pardosa wagleri* extended its range north downstream the river Isar to Freising (Bavaria, Germany)

(Arachnida, Araneae, Lycosidae)

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Gravel river banks subjected to regular flooding and relocation are rare habitats in Germany (Riecken et al. 2006). In the context of ‘Isar 2020’ (Wasserwirtschaftsamt München), bank reinforcements of the Isar between Freising and Moosburg have locally been removed during the last decade. We surveyed wolf spiders on two banks within the restored stretch (A: 48.4065° N, 11.8300° E; B: 48.4293° N, 11.8991° E) and on one bank outside (C: 48.3831° N, 11.7414° E) with two pitfall traps per bank in July 2016. One obvious difference between banks was the extent of plant cover: A and B had large portions devoid of any vegetation (Fig. 1). Bank C, in contrast, was overgrown by herbaceous and ligneous plants.

A list of species trapped is given in Table 1 together with abundances. It is noticeable that *Pardosa*

wagleri (Fig. 2), which is typical for dynamic gravel banks (Plachter 1986), was dominant only on the restored stretch, especially bank A. The remaining species, however, occurred in specimen numbers too low for statistical testing except *Xerolycosa miniata*, which was trapped on bank A in numbers similar to *P. wagleri*.

Most remarkably, Plachter (1986) listed *P. wagleri* only for the headwaters of the Isar south of Munich. Similarly, an up-to-date distribution map (Arachnologische Gesellschaft) lists *P. wagleri* at the Isar south of Munich only. One could, hence, speculate that the ‘Isar 2020’ measures might have led to an expansion of the ranges of *P. wagleri* downstream the Isar. However, caution is necessary, as *P. wagleri* might have been displaced by floods May/June 2016 to bank A. Mass turnover events might have also caused the range expan-



Fig. 1. Overview of gravel bank A, showing extensive unvegetated areas and groups of *Barbarea vulgaris*.

Fig. 2. *Pardosa wagleri* (♀) on bank A, carrying spiderlings.

Table 1. Wolf spider species and their abundances. The Red List status is from Blick et al. 2016. All specimens are stored in the Bavarian State Collection of Zoology.

	<i>Arctosa cinerea</i> (Fabricius, 1777)	<i>Pardosa</i> <i>amentata</i> (Clerck, 1757)	<i>Pardosa</i> <i>lugubris</i> (Walckenaer, 1802)	<i>Pardosa</i> <i>pratigaga</i> (L. Koch, 1870)	<i>Pardosa</i> <i>wagleri</i> (Hahn, 1822)	<i>Piratula</i> <i>knorri</i> (Scopoli, 1763)	<i>Trochosa</i> <i>ruricola</i> (De Geer, 1778)	<i>Xerolycosa</i> <i>miniata</i> (C. L. Koch, 1834)
Red List	2				3	V		
A	–	–	3	–	32	–	3	32
B	1	–	–	2	7	2	–	–
C	–	3	–	2	–	3	–	–

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sion. To further narrow down the causes for the expansion, more banks with 6 traps per bank will be used to monitor the Isar spiders in 2017.

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