

Six new botanical varieties of *Triticum* from Oman

Anna A. Filatenko · Karl Hammer ·
Sulaiman Al Khanjari · Andreas Buerkert

Received: 31 May 2010 / Accepted: 25 August 2010 / Published online: 25 September 2010
© Springer Science+Business Media B.V. 2010

Abstract Due to its geographic position on the northeastern tip of the Arabian Peninsula and its sea trade relationships with Asia, East Africa and the Middle East, Oman has for millennia been at the cross-roads of inter-regional exchange of cultivated plants. This is reflected in recent findings of new cultivars of banana (*Musa* spp.) and wheat (*Triticum* spp.) in remote oases of the Hajar Mountains in northern Oman. Material collected in 2003 and 2004 contained six new botanical varieties of wheat which are described here. One of them belongs to the tetraploid *T. aethiopicum*, the others are hexaploid.

Keywords Biodiversity · Oasis agriculture ·
Triticum aethiopicum · *T. aestivum* · *T. compactum*

Recent evidence shows that Oman is a hotspot for the evolution of some cultivated plants (Buerkert et al. 2009; Hammer et al. 2009; Gebauer et al. 2010) of which the genus *Triticum* was found to be of special interest (Al Khanjari et al. 2005; Filatenko et al. 2008). Among the species collected and partly evaluated by us (Al Khanjari 2005; Al Khanjari et al. 2007a, b; Zhang et al. 2006) are: at the tetraploid level *T. dicoccon* Schrank (Hammer et al. 2004), *T. durum* Desf. and *T. aethiopicum* Jakubz. (Al Khanjari et al. 2008), and at the hexaploid level *T. aestivum* L. and *T. compactum* Host (Filatenko et al. 2008). Two new botanical varieties of *T. aestivum* were already described by Al-Maskri et al. (2003). Recent collecting missions throughout northern Oman (Fig. 1) in 2003–2004 resulted in material which confirmed the peculiarity of Omani wheat germplasm. This material was reproduced in a growth chamber and in parallel under field conditions at University of Kassel-Witzenhausen followed by a botanical determination based on Dorofeev et al. (1979). From this six new botanical varieties of wheat were identified which are described as follows (Fig. 2):

- (1) *Triticum aethiopicum* Jakubz. var. *mahsanense* A. Filat. et K. Hammer, var. nov.—A *Tritico aethiopico* var. *bicolor* (Chiov.) A. Filat. spicis pubescentibus differt.

Typus: Peninsula arabica, Oman, cultivar localis Missani, exped. No. 55/129-9, districtus Sharquia, prope pagus Al Raky, leg. 2004, K. Hammer et S. Al

A. A. Filatenko
Vavilov Institute, 13 Linija, 12, Kv. 7,
199034 St. Petersburg, Russia

K. Hammer · A. Buerkert (✉)
Organic Agricultural Sciences, University of Kassel,
37213 Witzenhausen, Germany
e-mail: tropcrops@uni-kassel.de

S. Al Khanjari
DARIS Center for Scientific Research and Technology
Development, University of Nizwa, PO Box 33,
PC 616 Birkat-al-Mouz, Nizwa, Sultanate of Oman