

**Studbook**  
**Breeding Programme**

*Uromastyx thomasi*  
**Oman-Spiny-tailed-Lizard**



Photo: Felix Hulbert

**First Annual Report (2006)**

Thomas M. Wilms, Species-Coordinator

# **Studbook / breeding Programme Oman-Spiny-tailed-Lizard** **(*Uromastyx thomasi*)**

Annual Report 2006

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## 1. Introduction

*Uromastyx thomasi* has been described in the year 1930 by PARKER on the basis of two specimens. The holotype originated from Bu Ju'ay, Rub'al Khali, Dhofar and is now in „The Natural History Museum“, London [BM 1946.8.14.43 (old number: BM 1930.6.30.2)]. Since its description only few has been published about this species (see also BARTS & WILMS 1997), including faunal lists (PARKER 1931, WERMUTH 1967, ARNOLD 1986, WELCH 1994) as well as publications on the zoogeography of Arabia (ARNOLD 1987) and on the phylogeny of the genus *Uromastyx* (MOODY 1987). WILMS (1995) compiled all available data on *U. thomasi* or the first time and prepared a distribution map for the species.

At that time the knowledge on morphology, distribution and especially ecology was very limited. Ecological observations of *U. thomasi* have been published by ARNOLD (1980), WILMS & HULBERT (2000) and WILMS, LÖHR & HULBERT (2002).

*Uromastyx thomasi* lives in coastal Oman. The status of the wild population is unknown, but preliminary investigations suggest, that this species is not common in wide parts of the range (WILMS, unpublished). The distribution area of *U. thomasi* has a length of approx. 600 km and a maximum width of 230 km. Obviously not all types of landscape (e.g. mountainous areas) represented in the natural range of the species are suitable for them as habitats.

In the year 1998 the author was able to examine 19 preserved specimens in museum collections [„The Natural History Museum“, London (BMNH) and Zoologisches Forschungsinstitut und Museum A.Koenig, Bonn (ZFMK)]. Some more specimens are kept in the collections of the Museum of Natural History, Muscat, Oman; the University of Muscat, Al Khod; the California Academy of Science, San Francisco and the Museum of the Bombay Natural History Society. WILMS et al. (2002) estimated the number of *Uromastyx thomasi* known to science of not more than 30 specimens (until the year 1998).

## 2. Studbook population

The captive population of *Uromastyx thomasi* consists today (January 2007) of 33 specimens. The founders of this population have been imported to Germany in accordance with national and international laws in 1998 for breeding project. First captive breeding occurred in 2000 (WILMS et al 2002). The animals are being kept at six locations. Four locations left the breeding programme before 2006 because of loss of all specimens. In 2006 breeding occurred at one location. The sex ratio within the population is: 12.4.17.

### **3. Imports**

No imports of this taxon occurred since 1998.

### **4. Natural history notes**

According to WILMS & HULBERT (2000) and WILMS et al. (2002) *Uromastyx thomasi* lives in stony and sandy plains with sparse vegetation. At the end of November the specimens were active from 11 a.m. to 4 p.m. The temperature of the surface and air temperature one meter above ground was measured. The surface temperature ranged from 37.5-51.1 °C, while the air temperature was 29.2-35.8 °C. The body temperature of 24 specimens ranged from 33.1-39.4 °C. The temperature was measured within 10 and 35 min. after the first sighting of the respective animal (for details see WILMS et al. 2002). The temperature in the burrows was between 30.3-33.6 °C at a depth of 20-41cm. In four burrows temperature at a depth of more than 53 cm was measured. The data are 34 °C at 53.5 cm, 31.4 °C at 47.5 cm, 29.7 at 67 cm and 29.6 °C at 77.5 cm. The length of the burrows varied between 45 and 165 cm. One specimen played dead after capturing. A total of 38 faecal samples have been analysed and despite the fact, that six plant species were found in the habitat, only two different plant species could be found in the droppings: *Indigofera* sp. (Fabaceae) and *Plantago albicans* (Plantaginaceae). Remains of insects or other animals could not be found in the faecal samples (WILMS et al. 2002).

### **5. Reproduction in captivity**

First captive breeding of *Uromastyx thomasi* occurred in the year 2000 (WILMS et al. 2002). The animals have been kept pair wise in enclosures with one square meter floor space. Substrate temperature was partially between 45 and 55 °C. Air temperature was between 35 and 40 °C at daytime and around 18 –23 °C at night time. Photoperiod was 10 hours. Courtship behaviour began late February. Pregnancy takes around 35 days and oviposition takes place between May and September. Clutch size is between 9 and 16 eggs. Animals hatched in August 2000 reproduced for the first time at an age of 24 month. The juveniles of the F<sub>2</sub>-generation hatched between 22-25, November 2002. In 2003 breeding occurred with one of the original (wild caught) pairs and a pair consisting of WC male and a CB 2000 female (F<sub>1</sub>). In total 58 *Uromastyx thomasi* have been bred in the years 2000, 2002, 2003 and in 2004. Unfortunately some of these CB *U. thomasi* experienced a high mortality at four locations, so that the number of specimens transferred into the ESF Studbook is much lower.

Incubation period was between 81 and 101 days. The juveniles had an average snout-vent-length (tail length) of 45.7 (17,2) mm [Clutch 1] ; 49.8 (19,1) mm [Clutch 2] and 46,9 (20,2) mm [Clutch 3]. Mass was averaged 5,6 g [Clutch 1], 4,3 g [Clutch 2] und 4.87 g [Clutch 3]. Of the 34 hatchlings from 2000 only 4 specimens are females. Because of this fact we suggest, that in *U. thomasi* the sex of the hatchlings could be greatly influenced by the incubation temperature (temperature depending sex determination).

Until today, there are no available data on the time of oviposition or hatching of wild *Uromastyx thomasi*. Only the collection dates of three very young juveniles in the Natural History Museum, London are known (BMNH 1973.403, BMNH 1973.2906 and BMNH 1973.2907), which were collected in November 1972 and March 1973. All three specimens are of similar size, which points to a elongated egg laying period of presumably 3-5 month. This fits with the observations on captive *U. thomasi*. The first clutch was laid 01.05 and the last one 23.09. Some of the captive females laid two clutches in one breeding season. If this is likewise possible in the wild is not known.

## 6. References

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# **Oman-Spiny-tailed-Lizard** *(Uromastyx thomasi)*

Compiled by: Thomas M. Wilms

Data current thru: 30. January 2007

# Uromastyx thomasi

## Reptilia / Squamata / Agamidae Zuchtbuch geführt von: Thomas Wilms

ID	Ort	Datum	lokale ID	Trans	Geschlecht	Schlupf	Vater	Mutter
U00001	FHULB	~01.11.1998	FH1	Wildfang	Weibchen	~01.01.1992	WILD	WILD
U00002	FHULB	01.11.1998	FH2	Wildfang	Männchen	~01.11.1992	WILD	WILD
U00003	FHULB	11.11.2006	FH3	Schlupf/Geburt	Unbekannt	11.11.2006	U00002	U00001
U00004	FHULB	11.11.2006	FH4	Schlupf/Geburt	Unbekannt	11.11.2006	U00002	U00001
U00005	FHULB	11.11.2006	FH5	Schlupf/Geburt	Unbekannt	11.11.2006	U00002	U00001
U00006	FHULB	11.11.2006	FH6	Schlupf/Geburt	Unbekannt	11.11.2006	U00002	U00001
U00007	FHULB	11.11.2006	FH7	Schlupf/Geburt	Unbekannt	11.11.2006	U00002	U00001
U00008	TWILMS HZWARTE HZWARTE	09.08.2000 21.09.2003 21.06.2005	 HZ0930 HZ0930	Schlupf/Geburt Transfer Tod	Männchen	09.08.2000	UNK	UNK
U00009	TWILMS WIFONT	~01.09.2004 04.12.2005	unk WF054	Schlupf/Geburt Transfer	Männchen	~01.09.2004	UNK	UNK
U00010	TWILMS WIFONT WIFONT	~01.09.2004 04.12.2005 15.04.2006	unk WF055 WF055	Schlupf/Geburt Transfer Tod	Männchen	~01.09.2004	UNK	UNK
U00011	TWILMS JWIE	~01.09.2004 ~01.04.2005	unk JW1	Schlupf/Geburt Transfer	Männchen	~01.09.2004	UNK	UNK
U00012	TWILMS JWIE	~01.11.1998 ~01.11.2006	unk JW2	Wildfang Transfer	Weibchen	~01.11.1998	WILD	WILD
U00014	TWILMS HZWARTE	09.08.2000 21.09.2003	unk HZ0931	Schlupf/Geburt Transfer	Männchen	09.08.2000	UNK	UNK
U00015	TWILMS HZWARTE	~01.12.2002 21.09.2003	unk HZ0932	Schlupf/Geburt Transfer	Unbekannt	~01.12.2002	UNK	UNK
U00016	TWILMS HZWARTE	~01.12.2002 21.09.2003	unk HZ0933	Schlupf/Geburt Transfer	Unbekannt	~01.12.2002	UNK	UNK
U00017	TWILMS HZWARTE HZWARTE	~01.12.2002 06.12.2003 21.09.2004	unk HZ0997 HZ0997	Schlupf/Geburt Transfer Tod	Unbekannt	~01.12.2002	UNK	UNK
U00018	TWILMS HZWARTE	~01.12.2002 06.12.2003	unk HZ0998	Schlupf/Geburt Transfer	Unbekannt	~01.12.2002	UNK	UNK
U00019	TWILMS HZWARTE	~01.12.2002 06.12.2003	unk HZ0999	Schlupf/Geburt Transfer	Unbekannt	~01.12.2002	UNK	UNK
U00020	TWILMS HZWARTE	~01.12.2002 06.12.2003	unk HZ1000	Schlupf/Geburt Transfer	Unbekannt	~01.12.2002	UNK	UNK
U00021	TWILMS	~01.11.1998	TW0001	Wildfang	Weibchen	~01.11.1998	UNK	UNK
U00022	TWILMS	~01.11.1998	TW0002	Wildfang	Weibchen	~01.11.1998	UNK	UNK

U00023	TWILMS	~01.11.1998	TW0003	Wildfang	Männchen	~01.11.1998	UNK	UNK
U00024	TWILMS	09.08.2000	TW0004	Schlupf/Geburt	Männchen	09.08.2000	UNK	UNK
U00025	TWILMS	09.08.2000	TW0005	Schlupf/Geburt	Männchen	09.08.2000	UNK	UNK
U00026	TWILMS	09.08.2000	TW0006	Schlupf/Geburt	Männchen	09.08.2000	UNK	UNK
U00027	TWILMS	~01.09.2004	TW0007	Schlupf/Geburt	Unbekannt	~01.09.2004	UNK	UNK
U00028	TWILMS	~01.09.2004	TW0010	Schlupf/Geburt	Unbekannt	~01.09.2004	UNK	UNK
U00029	TWILMS	~01.09.2004	TW0008	Schlupf/Geburt	Unbekannt	~01.09.2004	UNK	UNK
U00030	TWILMS	~01.09.2004	TW0009	Schlupf/Geburt	Unbekannt	~01.09.2004	UNK	UNK
U00031	TWILMS	~01.09.2004	TW0011	Schlupf/Geburt	Unbekannt	~01.09.2004	UNK	UNK

<b>ID</b>	<b>Ort</b>	<b>Datum</b>	<b>lokale ID</b>	<b>Trans</b>	<b>Geschlecht</b>	<b>Schlupf</b>	<b>Vater</b>	<b>Mutter</b>
U00032	TWILMS	~01.09.2004	TW0012	Schlupf/Geburt	Unbekannt	~01.09.2004	UNK	UNK
U00033	TWILMS ANOPPER	~09.08.2000 ~01.01.2006	unk AO0001	Schlupf/Geburt Transfer	Männchen	~09.08.2000	UNK	UNK