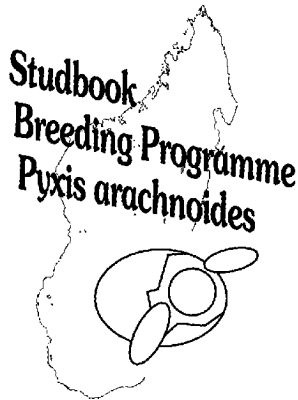


**Studbook
Breeding Programme
*Pyxis arachnoides***



**Annual Report
1999**

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Since 1992 several Dutch herpetological societies have initiated a total of 60 studbook programmes on reptile and amphibian species. In 1997, all programmes were condensed into an independent foundation known as: 'Stichting Overkoepelend Orgaan Stamboeken' (SOOS). Early in its development, SOOS formulated the very important criteria that no studbook participant would jeopardise their important herpetological contributions and goals with any commercial enterprise from their specimens, either currently or in the future. The Studbook Breeding Programme *Pyxis arachnoides* is one of few studbooks operating internationally. The aims of the studbook programmes in general are:

- To inform the herpetological community with data and publications generated from captive situations and field studies
- Procuring, maintaining, and reproducing genetically healthy captive individuals for future loans to recognised individuals and institutions

These conservation goals are particularly relevant today as wild populations of many reptiles and amphibians experience increasing survival pressures. Establishing working programs that emphasise captive husbandry in conjunction with fieldwork is crucial in developing sound wildlife management. A significant contribution that captive animals may perform is through the concept of re-introduction of their potential offspring. Although re-introduction of species is at a very early stage and occasionally controversial, there may come a time when the offspring of captive animals are the sole source for re-introducing species into previously suitable habitat where the natural population has become extinct. More importantly re-introduction has the potential of insuring genetic diversity to populations that have become unnaturally isolated due to human interference.

1. INTRODUCTION

1.1. Activities in 1999

This report is the first annual report of the Studbook Breeding Programme *Pyxis arachnoides*, founded in 1999. The programme is aiming to form breeding captive populations and to study these, and to gather and distribute as much information about *P. arachnoides* as possible.

In 1999 an inventory of *P. arachnoides* already present in captivity was made. A total of 8 known keepers was contacted, and furthermore a call for keepers to contact the studbook coordinator was published in the journal of the Dutch Turtle/Tortoise Society. As a result, 22 specimens were registered, housed at 6 locations (see also chapter 2). Three additional locations (approximately 15 specimens) will be registered in the near future. This, and the status of the species in the wild, justify continuing the efforts to start a studbook on *P. arachnoides*. An information sheet, explaining the guidelines of the studbook, has been prepared by the studbook coordinator. Also a special logo has been made available (cover).

Even before the Studbook Breeding Programme *Pyxis arachnoides* had started, several keepers have studied their captive specimens and presented lectures about *P. arachnoides* in the Netherlands, Germany, Austria and Switzerland. The 2000 annual report of the Studbook Breeding Programme *Pyxis arachnoides* will list such activities, as far as carried out by participants in 2000.

In the following chapters, a summary of plans and activities for 2000 will be presented, as well as an overview of the current composition of the captive population *P. arachnoides*.

1.2. Plans and activities in 2000

It will be attempted to set up the Studbook Breeding Programme *Pyxis arachnoides*, similar to the existing Studbook Breeding Programme *Homopus*. Information about the setup of the latter programme can be found on the programme's internet site, <http://www.homopus.org>, or in the annual studbook report. Main activities include gathering information from the captive population and distributing this, both in writing, presentations and on the internet. Furthermore, the captive population may serve as a source of material (DNA-samples, egg shells, etcetera) if needed for (external) research.

Whereas much of the information within the Studbook Breeding Programme *Homopus* initially was generated by the studbook coordinator, this will not be the case in the studbook on *P. arachnoides*. Therefore, active participation of the studbook participants will be required to succeed.

Efforts to locate additional specimens in captivity will continue in 2000. For the time-being, the distribution of the captive studbook population in the Studbook Breeding Programme *Pyxis arachnoides* will be limited to Europe. It would seem that a sufficiently large, but manageable, population can be formed there.

2. CURRENT LIVING STUBBOOK POPULATION

The initial studbook population *P. arachnoides* in 1999, is showed in the table below. A total of 22 live specimens is housed at 6 locations in the Netherlands (3), Belgium (1) and Germany (2). Locations 4 and 6 are virtual locations, outside of the Studbook Breeding Programme *Pyxis arachnoides*. Locations 3 and 7 are non-existent locations. All three subspecies of *P. arachnoides* are represented in the studbook, but *P. a. oblonga* and *P. a. brygooi*, are limited in numbers. Husbandry conditions and additional information per location are not available in the current report, but it is planned to add an overview in the 2000 annual report.

Table I: Current living studbook population *Pyxis arachnoides* per location as registered in the studbook. M is male, F is female, U is unknown, UNKN is unknown, D is donation, L is loan, P is purchase and B is birth.

STUD ID	SEX	SIRE ID	DAM ID	DATE OF ARRIVAL dd/mm/yy	LOCATION	HOUSE NAME	FCOEF	SUB-SPECIES
LOCATION 1 (0.0.3)								
0001	U	UNKN	UNKN	09/09/96 22/11/98	LOCATION 6 (B) LOCATION 1 (L)	- Para960909	0.000	<i>arachnoides</i>
0002	U	UNKN	UNKN	16/11/96 22/11/98	LOCATION 6 (B) LOCATION 1 (L)	- Para961116	0.000	<i>arachnoides</i>
0003	U	UNKN	UNKN	16/09/97 22/11/98	LOCATION 6 (B) LOCATION 1 (L)	- Para970916	0.000	<i>arachnoides</i>
LOCATION 2 (1.1.4)								
0004	M	WILD	WILD	17/05/99	LOCATION 2 (P)	Uli	0.000	<i>arachnoides</i>
0005	F	WILD	WILD	17/05/99	LOCATION 2 (P)	Esther	0.000	<i>arachnoides</i>
0006	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000	<i>brygooi</i>
0007	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000	<i>brygooi</i>
0008	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000	<i>brygooi</i>
0009	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000	<i>brygooi</i>
LOCATION 5 (0.0.5)								
0013	U	UNKN	UNKN	24/10/97	LOCATION 5 (B)	-	0.000	<i>oblonga</i>
0014	U	UNKN	UNKN	28/05/97	LOCATION 5 (B)	-	0.000	<i>oblonga</i>
0015	U	UNKN	UNKN	26/06/97	LOCATION 5 (B)	-	0.000	<i>oblonga</i>
0016	U	UNKN	UNKN	27/04/99	LOCATION 5 (B)	-	0.000	<i>oblonga</i>
0017	U	UNKN	UNKN	20/07/99	LOCATION 5 (B)	-	0.000	<i>oblonga</i>
LOCATION 8 (1.0.0)								
0018	M	WILD	WILD	01/01/95	LOCATION 8 (?)	-	0.000	<i>arachnoides</i>
LOCATION 9 (2.1.0)								
0019	M	WILD	WILD	08/12/90	LOCATION 9 (P)	'Damaged'	0.000	<i>arachnoides</i>
0020	M	WILD	WILD	08/12/90	LOCATION 9 (P)	-	0.000	<i>arachnoides</i>
0021	F	WILD	WILD	08/12/90	LOCATION 9 (P)	-	0.000	<i>arachnoides</i>
LOCATION 10 (1.1.1)								
0022	M	WILD	WILD	? 28/06/99	LOCATION 4 (B) LOCATION 10 (P)	- Paam1	0.000	<i>arachnoides</i>
0023	M	WILD	WILD	? 28/06/99	LOCATION 4 (B) LOCATION 10 (P)	- Paam2	0.000	<i>arachnoides</i>
0024	F	WILD	WILD	? 28/06/99	LOCATION 4 (B) LOCATION 10 (P)	- Paaf1	0.000	<i>arachnoides</i>

STUD ID	SEX	SIRE ID	DAM ID	DATE OF ARRIVAL dd/mm/yy	LOCATION	HOUSE NAME	FCOEF	SUB-SPECIES
0025	U	UNKN	0024	02/09/99 18/09/99	LOCATION 4 (B) LOCATION 10 (P)	- Paau1	0.000	<i>arachnoides</i>

Total population: (6.3.13)

All specimens together make the total living studbook population 6 males, 3 females and 13 unknown, housed at 6 locations. No females, but 1 solitary male *P. a. arachnoides* fit for breeding purposes is present, at location 8 (0018). At 2 locations (locations 9 and 10) breeding groups composed of 2 males and a single female are kept.

Since a relatively large amount of captive-bred specimens of unknown sex is present in the population, the question how to compose unrelated F1-breeding groups will become actual soon.

Table II: Current living studbook population *Pyxis arachnoides* as registered in the studbook.

LOCATION	MALES	FEMALES	UNKNOWN
LOCATION 1	0	0	3
LOCATION 2	1	1	4
LOCATION 5	0	0	5
LOCATION 8	1	0	0
LOCATION 9	2	1	0
LOCATION 10	2	1	1
TOTAL	6	3	13

3. IMPORTS, BIRTHS AND DEATHS

Imports of *P. arachnoides*, organised by the Studbook Breeding Programme *Pyxis arachnoides*, did not take place in 1999. As there seems to be a relatively large number of specimens already present in captivity, efforts to import additional specimens from Madagascar are not planned.

There is one location that bred *P. arachnoides* in 1999 (location 5; specimens 0016 and 0017 of subspecies *P. a. oblonga*). Furthermore, the species was bred at a location outside of the Studbook Breeding Programme *Pyxis arachnoides* (location 4; specimen 0025 of subspecies *P. a. arachnoides*). Efforts to register this location in the studbook registration will be continued in 2000. Two of the locations that are expected to be registered in 2000, breed *P. arachnoides* as well (subspecies *P. a. arachnoides* and *P. a. brygooi*).

Table III: Births of *Pyxis arachnoides* in 1999. U and UNKN is unknown.

STUD ID	SEX	SIRE ID	DAM ID	DATE OF ARRIVAL dd/mm/yy	LOCATION	HOUSE NAME	FCOEF	SUBSPECIES
0016	U	UNKN	UNKN	27/04/99	LOCATION 5 (B)	-	0.000	<i>oblonga</i>
0017	U	UNKN	UNKN	20/07/99	LOCATION 5 (B)	-	0.000	<i>oblonga</i>

Total number of births: (0.0.2)

No specimens within the studbook *P. arachnoides* died in 1999.

4. TOTAL STUDBOOK POPULATION AND FUTURE PERSPECTIVES

The current total studbook population of the studbook *P. arachnoides* consists of 22 specimens: 13 *P. a. arachnoides*, 5 *P. a. oblonga* and 4 *P. a. brygooi*. From these, 10 are wild-caught specimens and 12 are captive-bred. No captive-bred *P. a. brygooi* are present. All tortoises are currently alive, housed at 6 (participating) locations. Studbook numbers 0010-0012 are virtual specimens, outside of the Studbook Breeding Programme *Pyxis arachnoides*.

The studbook population consists of a relatively large number of young specimens of unknown sex. However, many of these specimens are expected to be males. In the future the question will become actual, how to form unrelated F1-breeding groups, in order to prevent inbreeding. Three keepers of *P. arachnoides* (2 of them breeding) that still need to register their specimens, may improve the viability of the Studbook Breeding Programme *Pyxis arachnoides*.

Table IV: Total studbook population *Pyxis arachnoides*. M is male, F is female, U and UNKN is unknown, D is donation, L is loan, P is purchase and B is birth.

STUD ID	SEX	SIRE ID	DAM ID	DATE OF ARRIVAL dd/mm/yy	LOCATION	HOUSE NAME	FCOEF	DATE OF DEATH	SUB-SPECIES
0001	U	UNKN	UNKN	09/09/96 22/11/98	LOCATION 6 (B) LOCATION 1 (L)	- Para960909	0.000		<i>arachnoides</i>
0002	U	UNKN	UNKN	16/11/96 22/11/98	LOCATION 6 (B) LOCATION 1 (L)	- Para961116	0.000		<i>arachnoides</i>
0003	U	UNKN	UNKN	16/09/97 22/11/98	LOCATION 6 (B) LOCATION 1 (L)	- Para970916	0.000		<i>arachnoides</i>
0004	M	WILD	WILD	17/05/99	LOCATION 2 (P)	Uli	0.000		<i>arachnoides</i>
0005	F	WILD	WILD	17/05/99	LOCATION 2 (P)	Esther	0.000		<i>arachnoides</i>
0006	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000		<i>brygooi</i>
0007	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000		<i>brygooi</i>
0008	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000		<i>brygooi</i>
0009	U	WILD	WILD	19/09/98	LOCATION 2 (P)	-	0.000		<i>brygooi</i>
0010	Virtual specimen outside of studbook								
0011	Virtual specimen outside of studbook								
0012	Virtual specimen outside of studbook								
0013	U	UNKN	UNKN	24/10/97	LOCATION 5 (B)	-	0.000		<i>oblonga</i>
0014	U	UNKN	UNKN	28/05/97	LOCATION 5 (B)	-	0.000		<i>oblonga</i>
0015	U	UNKN	UNKN	26/06/97	LOCATION 5 (B)	-	0.000		<i>oblonga</i>
0016	U	UNKN	UNKN	27/04/99	LOCATION 5 (B)	-	0.000		<i>oblonga</i>
0017	U	UNKN	UNKN	20/07/99	LOCATION 5 (B)	-	0.000		<i>oblonga</i>
0018	M	WILD	WILD	01/01/95	LOCATION 8 (?)	-	0.000		<i>arachnoides</i>
0019	M	WILD	WILD	08/12/90	LOCATION 9 (P)	'Damaged'	0.000		<i>arachnoides</i>
0020	M	WILD	WILD	08/12/90	LOCATION 9 (P)	-	0.000		<i>arachnoides</i>
0021	F	WILD	WILD	08/12/90	LOCATION 9 (P)	-	0.000		<i>arachnoides</i>
0022	M	WILD	WILD	? 26/06/99	LOCATION 4 (B) LOCATION 10 (P)	- Paam1	0.000		<i>arachnoides</i>
0023	M	WILD	WILD	? 28/06/99	LOCATION 4 (B) LOCATION 10 (P)	- Paam2	0.000		<i>arachnoides</i>
0024	F	WILD	WILD	? 28/06/99	LOCATION 4 (B) LOCATION 10 (P)	- Paaf1	0.000		<i>arachnoides</i>
0025	U	UNKN	0024	02/09/99 18/09/99	LOCATION 4 (B) LOCATION 10 (P)	- Paau1	0.000		<i>arachnoides</i>

Total studbook population: (6.3.13)

5. LITERATURE ABOUT *PYXIS*

It is planned to compose a list of literature on *Pyxis* at this place. Anyone who is aware of references, please send these to the studbook coordinator, for inclusion in the 2000 annual studbook report, and the internet site. Three lay-out examples (book, article and internet site) are listed below.

Bloxam, O.M.C., Nody, J.P., Rabenjanahary, R.D. and Gibson, R.C. (1996). Estimating density and abundance of the Madagascar flat-tailed tortoise *Pyxis planicauda*. *Dodo - Journal of the Jersey Wildlife Preservation Trust* 32: 132-136.

Hosek, P., Dobišáek, I., Kunte, L. and Bálek, J. (1999). Preliminary results of the biological research in the Hatokaliotsy region, South-West Madagascar. Internet: http://vesmir.kav.cas.cz/Pavel/ekokonference_EN.html.

Müller, V. and Schmidt, W. (1995). *Schildkröten*. Terrarien Bibliothek, Natur und Tier - Verlag, Münster.