

Studbook breeding programme

Oplurus cuvieri cuvieri

Reptilia / squamata / opluridae

(Madagascan spiny tailed iguana)

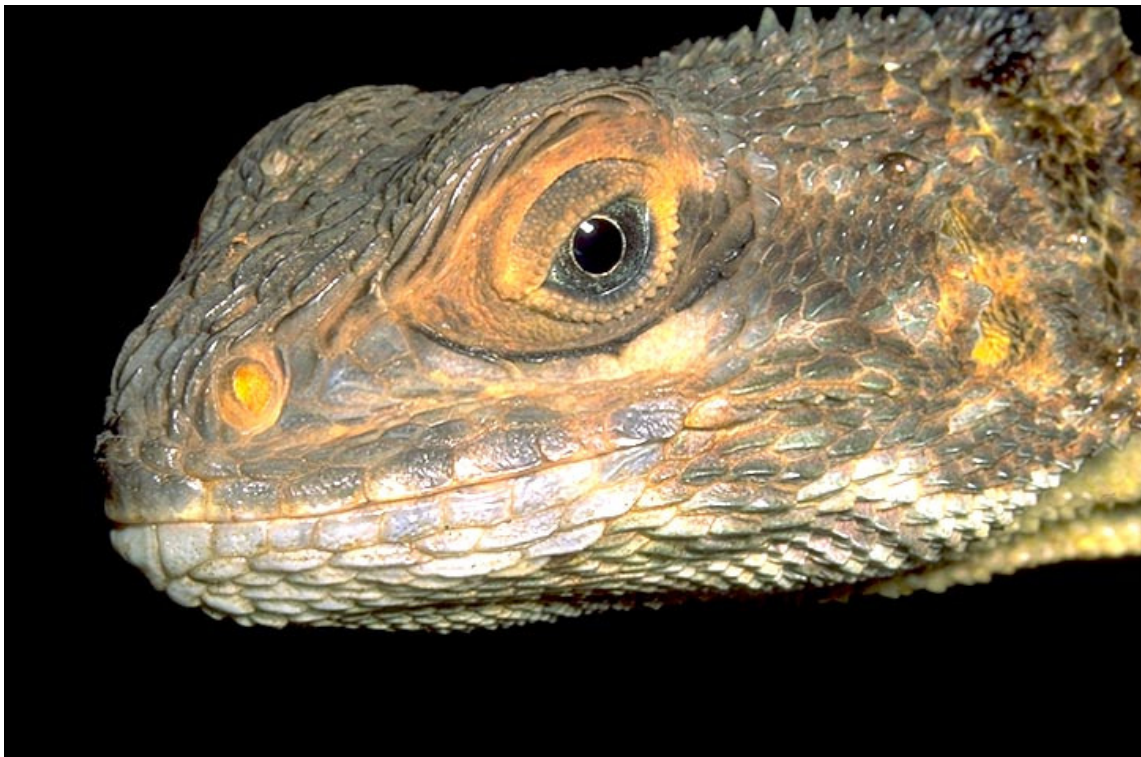


Photo by David R. Parks

Annual report 2008

Gerrit Hofstra studbook keeper

Contents

Contents	2
Introduction.....	3
Madagascan iguanids	3
Subspecies	4
Situation in the wild	5
Activities 2008.	6
Imports Births an Deaths	6
Perspectives	6
Keeping conditions	7
Enclosure	7
Climate	7
Food.....	8
Social behavior	8
Literature on the species.....	9
Cited literature	9

Introduction.

Madagascan iguanids

Madagascar has two genera of Iguanids the monotypic genus of *Chalarodon* and the genus *Oplurus* (6 species). This studbook deals with the genus *Oplurus*. Most *Opluridae* with the possible exception of *O. fierensis*, which is only known from a single location, are not threatened in the wild, however originating from Madagascar, with its ongoing habitat destruction, this status might soon change. The ESF studbook of the species is founded because of the small genetic base of the registered captive population and therefore the need for careful breeding to avoid unnecessary inbreeding. Even though imports do occur occasionally there are very little reports about breeding the species, there is no reason to expect a large captive population outside the studbook. The more reason to be careful with the registered population.

For a proper identification of Madagascan iguanids see the key below.

Key to the Madagascan Iguanids (Glaw 1994)		
1a	Small species (up to 223 mm TL) generally living on sandy ground; a continuous dorsal crest is present	<i>Chalarodon madascariensis</i>
1b	Larger species (at least up to 250 mm TL) generally living on rocks or trees; dorsal crest absent or restricted to the neck	<i>Oplurus</i> (2)
2a	Tail with large and distinct spines; a small dorsal crest is present on the neck; mainly arboreal	3
2b	Tail without large spines; no dorsal crest; mainly living on rocks	4
3a	Scales of the tail with spines which distinctly alternate in size; northern west coast	<i>Oplurus cuvieri</i>
3b	Scales of the tail with spines of similar size; south west	<i>Oplurus cyclurus</i>
4a	Dorsal scales coarsely granular, tail slightly depressed at its base; four longitudinal dorsal series of large dark patches, more or less distinct	<i>Oplurus quadrimaculatus</i>
4b	Dorsal scales finely granular, tail base and body strongly depressed (distinct longitudinal folds along the flanks), no dark markings on the back	5

5a	A distinct light dorsal stripe is present; scales of vertebral region hexagonal, larger than dorsilateral scales	<i>Oplurus grandidieri</i>
5b	No distinct dorsal stripe; scales of vertebral region similar to dorsilateral scales.	6
6a	Back brownish, with vermiculations; often with a dark patch on the flank behind the foreleg insertions	<i>Oplurus saxicola</i>
6b	Back uniformly bluish gray; no dark patch on the flanks	<i>Oplurus fierinensis</i>

Subspecies

Oplurus cuvieri has two subspecies; the Madagascan population *O.c.cuvieri* and the population of the Comoren; *O.cuvieri comorensis*.

Even though there is only one subspecies described for Madagascar there is a distinct difference between the specimen from the northern and the southern part of the range, where the Jersey specimen represent the more bluish northern type.

For the other Madagascan Iguanids there are no subspecies described.



Oplurus cuvieri (Juvenile)



Oplurus cyclurus



Oplurus fierensis



Oplurus grandidieri



Detail tail Oplurus cyclurus



Oplurus quadrimaculatus



Detail tail Oplurus cuvieri



Oplurus saxicola

Copyright Photo's

Front page *Oplurus cuvieri* David R. Parks

Oplurus cuvieri, *Oplurus cyclurus*,
Oplurus fierensis, *Oplurus grandidieri*
and *Oplurus quadrimaculatus* Peter
Mudde; "Onder het palmblad"
<http://www.palmblad.nl/>.

Oplurus saxicola Moritz Grubenmann

Tail details Gerrit Hofstra

Situation in the wild

The subspecies *Oplurus cuvieri cuvieri* is endemic to Madagascar. Nature in Madagascar is under an enormous stress due to the growth of the population and the use of the forest in slash and burn agriculture and clearing of forests for firewood or charcoal burning. One of the effects of this use of the land is large scale erosion pressing the farmers to burn down even more forest.

Oplurus cuvieri is mainly a forest dwelling lizard so this could pose a threat to the population. Official data for this species is not available so I have tried to get some



data from other sources. Mainly these are unofficial data but the general picture is that the species is not yet under threat. *Oplurus cuvieri* is described as the most common lizard of Madagascar. Also there are reports of the species living in gardens, parks and other man made environments. Based on this data the species should not be considered rare or under treath.

Activities 2008.

In 2008 there where no publications or field research conducted by studbook participants

Planned activities 2009

No planned activities

Studbook population

The current studbook population is 51 animals of 2 different geographic varieties. If the animals originated from Krefeld are unrelated (as these most likely are animals originating from the wild, this is a fair assumption) the total number of bloodlines is 2 possibly 3 for the Jersey group and 6 (3.3) presumably wild caught animals from the other group. (It is unclear to which subgroup the animals at Sparsholt and Leipzich belong, most probably this will be the Blijdorp type since that type is the most often imported)

The three founder females have all died, one without any offspring, two with 2 offspring both. The situation with the males is unclear. Animal 8 has a lot of offspring, this bloodline should be considered as fully incorporated. Male 1 has at least 5 offspring possibly 7. Male 7 has at least 4 possibly 6 offspring. This means that the current basis of this studbook consists of 5 breeding bloodlines and 6 additional bloodlines at Sparsholt (4) and Leipzig (2). But no breeding results have been reported from Sparsholt or Leipzig yet.

Imports Births an Deaths

In 2008 there was no import and no births.

Specimen 1, one of the founder males in Rotterdam died of unknown causes at an estimated age of 24 years.

Perspectives

Keeping results for healthy well-adapted or hand-reared specimen are very good, with the oldest animal in the population estimated at 24 years, possibly older.

Breeding results are fair to good (the population is increasing) but breeding is mainly at one facility (Rotterdam Zoo). At this moment location Rotterdam Zoo, Zwartepoorte and Hofstra do not incubate the eggs because of inbreeding.

Even though breeding results are fair the number of bloodlines seems insufficient for a long-term survival of the studbook. The recent introduction of a new group of wild caught animals could release the stress for one of the subpopulations. It is not clear yet to which subpopulation the Sparsholt animals do belong. Photo's of the animals should make this clear.

Another option is to buy some animals at a pet shop where most of the species are fairly easily available. This however would contribute to the commercial and unsustainable trade in Madagascar wildlife and is as such undesirable.

Leipzig has agreed to trade one of their animals with an animal from location Zwartepoorte or Rotterdam Zoo. This could mean incorporating two new bloodlines into the breeding population.

Keeping conditions

Enclosure

Opluridae are active diurnal lizards. A large terrarium fit with plenty of hiding places seems essential for their well-being. I keep *Oplurus c. cuvieri* in dry terrariums sized 1,1x 80 x 60 (LBH) 1 pair or trio per tank. Since this is an arboreal species a higher tank might be beneficial but seems not to be essential.

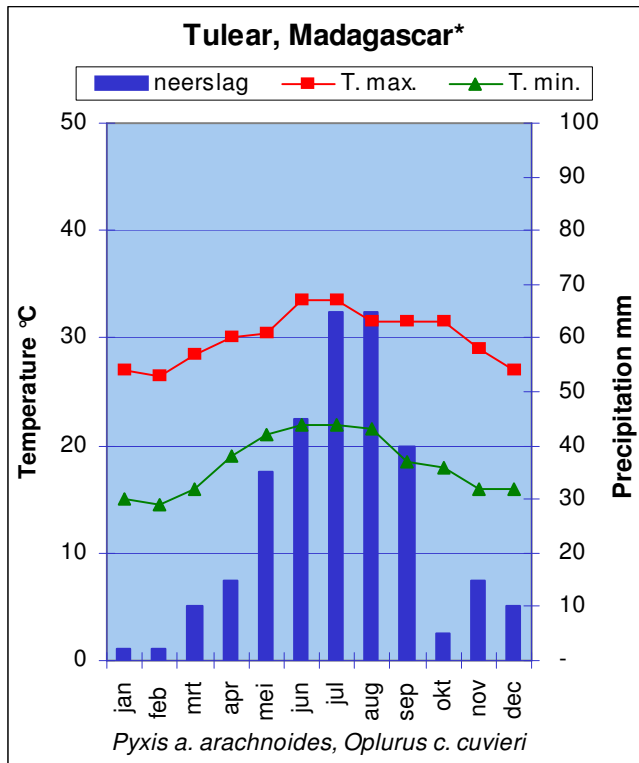
The tank is structured with large logs and thick vertical branches that they seem to prefer. They need a rather hot space to bask.

Climate

Three keepers (Hofstra, Rotterdam and Zwartepoorte) combine *Oplurus cuvieri* with the small Madagascan tortoise *Pyxis arachnoides*. Despite the fact that *O. cuvieri* originates from the northwestern quarter of the island and *Pyxis* from the extreme southwest this combination seems to work out fine even though the temperature in the south is a few degree's lower than in the north.

Basically the climate consists of a "wet" summer (regular spraying of the tank but overall moisture low, temperatures 30-34 degree, and a dry winter (no spraying, drinking water is however available) temperatures around 20 degree. Keepers Hofstra and Rotterdam Zoo have adapted the animals to the northern hemisphere as

in the graph. Note that in the graph the climate of Tulear is depicted 6 months shifted. This is the climate we are aiming to realize in the terrarium.



Food

Oplurus are mainly insectivores but greens are occasionally eaten. Healthy they are eager feeders taking a large variety of insects like super worms (*Zorophobas morio*) crickets (*Acheta domesticus*), roaches (*Blattica dubia*) and grasshoppers (*Locusta migratoria*). They seem to prefer larger insects too small ones, but this could also be the individual preference of my animals.

Social behavior

At the location Zwartepoorte 4 males have successfully been kept in the same enclosure for a reasonable time, at a certain moment however territorial fights did occur leading to the death of one male. Since then males are separated.

At the location Hofstra combining to young males resulted in the death of the smaller male. I therefore should strongly advice to keep the species in pairs. Small breeding groups formed of one male and several females also are possible, but also females might become territorial to each other.



Studbook keeper *Oplurus cuvieri cuvieri*
Gerrit Hofstra
Boscheweg 36
5151 BD Drunen

Literature on the species.

Cited literature

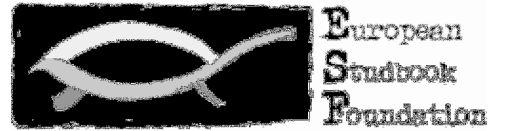
Glaw F, Vences MA fieldguide to the amphibians and reptiles of Madagascar
Moos Druck Leverkusen 1994



Studbook Madagascar spiny-tailed iguana
(*Oplurus cuvieri cuvieri*)

Mnemonic: HOFSTRA
 Holder: Gerrit Hofstra
 City: Drunen
 Country: Netherlands

Stud #	Sex	Birth	Sire	Dam	Location	Date	Local ID	Event
22	M	28 Sep 1999	8	16	ROTTERDAM	28 Nov 1999	704285	Birth
					HOFSTRA	1 Mar 2000	GH0103	loan
24	F	20 Aug 2002	8	16	ROTTERDAM	20 Aug 2002	704785	Birth
					HOFSTRA	9 Aug 2003	GH0272	loan
46	M	12 Oct 2004	8	16	ROTTERDAM	12 Oct 2004	705151	Birth
					NIEUWENHU	28 Jul 2007		loan
					HOFSTRA	22 Nov 2008	GH401	loan
47	F	12 Oct 2004	8	16	ROTTERDAM	12 Oct 2004	705152	Birth
					NIEUWENHU	28 Jul 2007		loan
					HOFSTRA	22 Nov 2008	GH0402	loan
54	F	8 Feb 2006	7	21	ROTTERDAM	8 Feb 2006	705402	Birth
					NIEUWENHU	28 Jul 2007		loan
					HOFSTRA	22 Nov 2008	GH0403	loan



Mnemonic: LEIPZIG
Holder: Zoologischer Garten Leipzig
City: Leipzig
Country: Germany

Stud #	Sex	Birth	Sire	Dam	Location	Date	Local ID	Event
62	U	~1 Jan 2000	WILD	WILD	WILD LEIPZIG	6 Apr 2005 6 Apr 2005	R00275	capture transfer
63	U	~1 Jan 1985	WILD	WILD	WILD LEIPZIG	6 Apr 2005 6 Apr 2005	R00277	capture transfer



Mnemonic: ROTTERDAM
 Holder: Rotterdam Zoo
 City: Rotterdam
 Country: Netherlands

Stud #	Sex	Birth	Sire	Dam	Location	Date	Local ID	Event
7	M	~1 Jan 1985	UNK	UNK	KREFELD ROTTERDAM	~1 Jan 1985 ~17 Dec 1994	unk 703170	Birth transfer
16	F	14 Dec 1995	UNK	3	ROTTERDAM	14 Dec 1995	703472	Birth
17	F	15 Dec 1995	UNK	3	ROTTERDAM	15 Dec 1995	703473	Birth
20	F	28 Sep 1999	8	16	ROTTERDAM	28 Sep 1999	704283	Birth
21	F	28 Sep 1999	8	16	ROTTERDAM	28 Sep 1999	704284	Birth
42	U	23 Jul 2004	8	16	ROTTERDAM	23 Jul 2004	705114	Birth
43	U	16 Aug 2004	8	16	ROTTERDAM	16 Aug 2004	705120	Birth
52	U	6 Feb 2006	7	21	ROTTERDAM	6 Feb 2006	705400	Birth
53	U	6 Feb 2006	7	21	ROTTERDAM	6 Feb 2006	705401	Birth
55	U	9 Feb 2006	7	21	ROTTERDAM	9 Feb 2006	705403	Birth
56	U	21 Sep 2006	8	16	ROTTERDAM	21 Sep 2006	705571	Birth
57	U	23 Sep 2006	8	16	ROTTERDAM	23 Sep 2006	705572	Birth
58	U	26 Sep 2006	8	16	ROTTERDAM	26 Sep 2006	705574	Birth
59	U	5 Jan 2007	1	21	ROTTERDAM	5 Jan 2007	705602	Birth
61	U	5 Jan 2007	1	21	ROTTERDAM	5 Jan 2007	705604	Birth



Mnemonic: SPARSHOLT
 Holder: Animal Management Centre Sparsholt College
 City: Winchester
 Country:

Stud #	Sex	Birth	Sire	Dam	Location	Date	Local ID	Event
48	M	~1 Jan 1990	WILD	WILD	WILD SPARSHOLT	1 Oct 1999 1 Oct 1999		capture transfer
49	F	~1 Jan 1990	WILD	WILD	WILD SPARSHOLT	1 Oct 1999 1 Oct 1999		capture transfer
50	M	~1 Jan 1990	WILD	WILD	WILD SPARSHOLT	1 Oct 1999 1 Oct 1999		capture transfer
51	F	~1 Jan 1990	WILD	WILD	WILD SPARSHOLT	1 Oct 1999 1 Oct 1999		capture transfer



Mnemonic: ZWARTEPOO
 Holder: Henk Zwartepoorte
 City: Rotterdam
 Country: Netherlands

Stud #	Sex	Birth	Sire	Dam	Location	Date	Local ID	Event
5	M	6 Sep 1993	1	2	ROTTERDAM	16 Sep 1993	703000	Birth
					ZWARTEPOO	1 Apr 1996	HZ0392	transfer
6	F	18 Feb 1994	1	2	ROTTERDAM	18 Feb 1994	703065	Birth
					ZWARTEPOO	1 Apr 1996	HZ0393	transfer
11	M	3 Nov 1994	9	10	JERSEY	3 Nov 1994	R667A	Birth
					ROTTERDAM	22 Aug 1995	703414	transfer
					ZWARTEPOO	23 Aug 1995	HZ0372	transfer
13	M	6 Nov 1994	9	10	JERSEY	6 Nov 1994	R667C	Birth
					ROTTERDAM	22 Aug 1995	703416	transfer
					ZWARTEPOO	23 Aug 1995	HZ0374	transfer
14	M	6 Nov 1994	9	10	JERSEY	6 Nov 1994	R667D	Birth
					ROTTERDAM	22 Aug 1995	703417	transfer
					ZWARTEPOO	23 Aug 1995	HZ0375	transfer
15	F	6 Nov 1994	9	10	JERSEY	6 Nov 1994	R667E	Birth
					ROTTERDAM	22 Aug 1995	703418	transfer
					ZWARTEPOO	23 Aug 1995	HZ0376	transfer
32	F	12 Sep 1995	UNK	UNK	JERSEY	12 Sep 1995	R722	Birth
					ZWARTEPOO	18 Feb 1999	HZ0621	transfer
33	F	5 Jul 1998	5	6	ZWARTEPOO	5 Jul 1998	HZ0569	Birth
					ZWARTEPOO	5 Jul 1998	HZ0569	transfer

Compiled by: Gerrit Hofstra 19 May 2009