***OXYRHOPUS RHOMBIFER INAEQUIFASCIATUS* (Flame snake): HABITS AND REPRODUCTION**. The Flame snake is a Neotropical species that occurs in central South America (Cei, 1993) with a colour pattern resembling that of the true coral snakes of genus *Micrurus* (Scrocchi *et al*., 2006). Data on natural history are scarce and only refer to two of the three subspecies that inhabit Argentina (*O. r. bachmanni* and *O. r. rhombifer*). These are characterized as oviparous terrestrial snakes that live in open areas such as grasslands and low hills (Cei, 1993; Giraudo, 2001; Cabrera, 2004; Scrocchi *et al*., 2006). The less studied subspecies, *O. r. inaequifasciatus*, occurs in the Pantanal (Brasil and Paraguay) and Great Chaco (Bolivia, Paraguay, and northern Argentina) regions (Cei, 1993; Kacoliris *et al*., 2006).

Between 2005 and 2006, we monitored 124 tree hollows used by parrots for nesting, as part of a research project on nesting ecology of the Blue-fronted parrot (*Amazona aestiva*). The survey was carried out at Loro Hablador Provincial Park (25º48´00´´S, 61º70´00´´W), located in the 'Impenetrable' (Great Chaco Region), a flood plain characterized by continuous seasonal dry forest dominated by white and red quebracho trees (*Aspidosperma quebracho-blanco* and *Schinopsis lorentzii* respectively); and by an absence of permanent wetlands or streams (Cabrera, 1976).

We found 4 hollows occupied by Flame snakes; all of them located in white quebrachos. The high of cavity-entrance varied from 3.5 m to 6.8 m and cavity depth varied from 0.6 m to 2.5 m. We found four adult individuals of *O. r. inaequifasciatus* in separate cavities. One of these individuals was observed twice (in the same cavity), on 29th October 2005 and 18th January 2006 (81 days later). On this second encounter the adult Flame snake was found along with three new-borns of the same species (Figure 1). Digital photographs of these specimens were deposited at Museo de La Plata (ref: MLP cf 0050-0054). The other tree hollows were also reinspected, but no other snakes were found.

We consider that the most probable explanation for one adult and three neonate Flame snakes sharing a single tree hollow is that the adult had laid its eggs at the bottom of the cavity, and we found it with recently hatched neonates. In our opinion, this is more likely than the rare coincidence of four individuals separately climbing the same tree and occupying the hollow. However, the possibility that tree cavities could act as pit-fall traps cannot be dismissed; in the latter case, the adult specimen would have been trapped.

Figure 1. Flame snake adult and neonates within a hollow in a White quebracho tree. © I. Berkunsky.

While terrestrial habits have been reported for *O. r. bachmanni* and *O. r. rhombifer*, our field observations suggest that *O. r. inaequifasciatus* possesses also arboreal habits. Snakes visit tree-hollows in order to obtain food and refuge (Fitzgerald *et al*., 2002; Fokidis & Risch, 2005); and it is possible that Flame snakes use tree hollows as nesting sites.

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***NATRIX MAURA* (Viperine snake): DEFENCE BEHAVIOUR**. The ways in which animals respond to a perceived threat are varied and depend on many factors, for example the size of the predator, its body temperature, its size or sex or the nature of the terrain where the encounter takes place. Snakes employ a variety of defence behaviours in response to predators. Included in this array is 'balling', a behaviour that is perhaps most commonly seen in the small boid *Python regius*, but this has also been observed in the viperine snake *Natrix maura* in Spain (Hailey & Davies, 1986). The present note describes the behaviour in *N. maura* in France and gives a photographic example. On June 23rd 2007 at the southern end of the village of Chasnais in the Vendee region of western France, a male *N. maura* (s.v. length 37cm) was captured whilst basking next to a drainage ditch. The snake was in the process of ecdysis (Figure 1) and this probably enabled the close approach and relatively easy capture as usually the snakes rapidly flee into water when approached. The weather was sunny at the time with an air temperature 23°C. After a few minutes handling, to enable the taking of photographs, the snake adopted the behaviour shown in Figure 2. As can be seen, the head is hidden and in the centre of the 'ball' with the tail raised above, which could represent a tail lure where a less valuable part of the body is offered as a diversionary tactic. According to Arnold & Ovenden (2002), *N. maura* may attain total lengths of 100cm

Figure 1. *Natrix maura*, just after capture. As can be seen the snake was in the process of ecdysis, as indicated by the cloudy eye condition. © R. Meek.

Figure 2. *Natrix maura* employing 'balling' behaviour.

and hence this individual was at the smaller end of the size range. Hailey & Davies (1986) found that the behaviour was more frequently employed by smaller *V. maura* due perhaps to their lower endurance and suggested that static defence may reduce the feeding stimulus of a predator and adopted when fasting or where performance capacity was reduced, for example low body temperature. It may be that in the present instance ecdysis was also a contributing factor. However, it should be noted that here the behaviour was apparently used as a last resort and adopted after flight and then musk release had failed. Biting has also been cited as a defence response in *N. maura* (Arnold & Ovenden, 2002) but was not observed in this snake nor in any of the *N. maura* captured in this area – perhaps there are regional differences. Roth & Johnson (2004) attribute an absence of biting in certain snakes to the potential danger of reducing the distance between predator and snake and hence the vulnerability of the head and neck region to injury.