

Keeping of Ornate spiny-tailed lizard (*Uromastyx ornata ornata* Heyden, 1827) at BION Terrarium Center

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Uromastyx ornata ornata Heyden, 1827 is a medium-sized representative of the genus *Uromastyx*. Maximum total length is about 37 cm (14.57 in), maximum SVL is about 19,5 cm (7.67 in). Scalation is homogeneous without enlarged spiky scales on the head, neck and dorsum. The dorsal surfaces of the hind limbs have conical spiky scales. The front edges of the ear openings have 5-7 enlarged scales. 149-185 scales are counted at mid body and 75-99 scales between inguinal and gular fold. The tail is slightly flattened and consists of 20-30 whorls. On each side 7-14 preanofemoral pores are located (Wilms, 2005).



Figure 1. *U. o. ornata* male (blue morph).

Coloration is variable providing excellent diversity of color variants for mastigures' fans. Color of the males is green, blue (Fig. 1) or red, with an irregularly reddish brown net-like pattern and yellow spots on the back. Sometimes yellow cross-bands are present. Located on this ground color are irregular, dark brown vermiculations with inlaid, deep yellow irregular markings. In some specimens these markings fuse into cross bands. This species show clear sexual dichromatism. Ventral part of males has dark pattern. Females are not as colorful as males. Their colors are subdued and less

vivid. They are light brown with dark brown spots and sometimes light yellow or light red spots. Belly has almost no patterns, being yellowish or white (Wilms, Böhme, 2007; Wilms, 2005).

A fairly good determinant of sex are also femoral pores, which are clearly marked in males. In sexually mature individuals, another method is to identify on the basis of the presence of hemipenis, which in males is clearly marked by two bulges at the base of the tail. It is hard to sex them in young age. Sometimes it is helpful to place a torch under the tail base of a juvenile. If you have a male you will see two long dark hemipenises inside. As the matter of fact this method is more reliable as the animals are getting older. So far there are no 100% reliable methods of sexing at early-aged animals.

This subspecies inhabits the Sinai Peninsula and adjacent portions of northwestern Saudi Arabia. In Israel, this species only occurs in extreme south around Eilat and the Wadi Makfa (Wilms, 2005). Their habitat is extremely arid with semi-desert and desert climate without severe winters but with temporary night frosts (Wilms, 2005; Bedir et al., 1994). Their habitat is characterized by rocky regions, crevices, gravelly desert areas up to 1000 m above sea level, and rock outcrops (<http://www.reptilesmagazine.com/Lizards/Ornate-Uromastyx-Care-and-Breeding-Tips/>).

Typically *U. o. ornata* live alone or in small groups, that have not more than one male. The animals excavate their own burrows that can be up to 100 cm deep (Bedir et al., 1994). Relative humidity inside such burrows is 30-60%, temperature ranges from +11 to +34 °C (51.8 - 93.2 F) (Wilms, 2005).

They are the mostly active at the first part of the day. They usually mate at the first time of the day as well. After midday they usually have a rest on the stones or in their burrows (https://en.wikipedia.org/wiki/Uromastyx_ornata).

Keeping and breeding requirements

Keeping. We keep adult *U. o. ornata* in horizontal terrariums that should be long enough to provide temperature gradient. We use terrariums of 90*60*60 cm (35*23*23 in) for a pair (1.1). We provide a layer of coarse sand or pressed loam as a substrate. Decoration includes bamboo steams, stones and artificial shelters (a ceramic plate on stones/2 bamboo trunks) along the terrarium's perimeter and especially under the basking point (Fig. 2). We keep them in pairs since animals of the same sex demonstrate aggression towards each other. On the opposite side from the basking place we make a hill of coarse sand that is lightly moistened during breeding season.

Lighting. Since these lizards are arid and diurnal, high light intensity is needed. We use LED lamps for lighting and a Raptor Solar lamps for heating and UV in one corner of the terrarium. We use them for making basking place above a ceramic plate. UV-light is necessary. Lighting period is 14 hours during mating season and 12 hours at other time except winter dormancy.



Figure 2. Terrarium for *U. o. ornata* (1.1)

Temperature. Ambient temperature should be around +28 - +30 °C (84.2 - 86.0 °F) at the day and not lower than +22 °C (71.6 F) at night. At basking place the temperature is about +50 - +60 °C (122.0 - 140.0 F). A flat stone/ceramic plate is placed under the basking lamp.



Figure 3. A group of *U. o. ornata* juveniles inside a terrarium with minimal decoration.

Humidity. Humidity level is low (30-50%). We spray sand lightly inside the shelter when female is gravid or twice a week at other period of time.

Water. Water bowl is placed inside a terrarium daily when a female is gravid and several weeks after egg-laying (until female fully recovers). We also place a water dish twice a month to adult animals at other period of time.

Diet. In the spring-autumn period we provide a salad, including: dandelions, nettles, arugula, basil, hemp, alfalfa, clover, as well as acacia flowers, roses and marigolds. In winter, we give a salad of: lettuce, Beijing cabbage, dill, parsley, arugula, basil, while adding dried herbs and flowers from the spring-autumn diet prepared in summer. 2-3 times a month we give a grain mixture of hemp seeds, lentils, millet, sorghum etc. When offering such grain mixture it is necessary to place a dish with water because this kind of food leads to dehydration and animals may need to restore water amount in their organisms. Animals that are younger than 1,5 years should not be fed with grain mixture at all. Once a week we offer bee pollen during the whole year.

We feed young animals up to 1 year of age daily. Food is placed in a dish. Some individuals may refuse to take food from the dish – in that case we put food just on the bottom of the terrarium. We offer food for adults every other day according to the amount of food eaten. We leave remains of the dried salad in the terrarium as these lizards eat them as well. During the breeding season, depending on the food consumed, we offer food either daily or every other day. At winter, it is mandatory to offer food 2 times a week. Normally we give bee pollen (1 pinch) at this time. Food can be put inside a dish or just on the plate at basking place.

References

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