

CONTRIBUTION TO THE REPTILE FAUNA OF NORTHERN IRAN

RICHARD CLARK

Kystveien 9, 4800 Arendal, Norway

ABSTRACT

Reptiles were observed and collected in Northern Iran in February and May 1968 on the way to and on the return journey from Afghanistan (Clark 1990). A report on this trip is long overdue and is justified owing to the scarcity of first-hand accounts in recent times on the herpetofauna of this country which is now virtually inaccessible to the ordinary traveller. For this reason I present detailed ecological observations, full descriptions of the lizards and snakes found as well as selected data on measurements and pholidosis. These latter details are either presented in the text or in tabular form in the case of the lacertid lizards. In addition I am including a fully detailed account of the itinerary, weather conditions experienced and a zoo-geographical analysis so that as clear a picture as possible will be given to the reader. Some taxonomic discussion is also allowed in some cases but in the main I refrain from making judgments in areas of uncertainty. Here can be mentioned the *Eremias* genus and the position of *Lacerta strigata* which is currently under review. 23 species are here considered: 16 lizards and 7 snakes. In addition *Testudo horsfieldi* was found in the Mashad region. *Rana ridibunda* was seen along the Caspian Sea coast. Most species were collected within 60 kilometers from the nearest town or village. Heights were measured using an aneroid altimeter and are given in meters: viz. 1060 m. Dates are given as day and month viz: 19/2, 25/5. All descriptions of the animals were made on freshly killed material or on living specimens and are as in life. In the text T/B indicates ratio of tail to body length. In the Tables the body length of juveniles is omitted. The collection was donated to the Senckenberg Museum in Frankfurt for permanent accession.

ITINERARY

The route followed on the outward journey between February 13th and February 22nd was the same as used on the return journey from May 15th to May 25th. From Bazorgan on the Turkey/Iran border the road passed through Maku, Marand, Tabriz, Mianeh and Qazvin to Tehran and then across the Elburz mountains to the Caspian Coast to Gorgan, Bojnurd, Quchan, Mashad Torbat-e-Jam to Taiabad near the Iran/Afghan border. These localities can be found on the accompanying map together with collecting sites.

WEATHER CONDITIONS

Snow cover was extensive in February from the Turkish border to the outskirts of Tehran and over the Elburz range. A minimum of -9°C was recorded near Maku on February 13th with a midday reading of 1.5° . The Caspian zone at this season was mild but cloudy with minima around 4° and maxima of 16° . Eastwards to Mashad the weather was fine with early afternoon temperatures between 14° and 17.5° . Night minima lay between -1° and 6.5° . Snow was present on the mountains either side of the road between Bojnurd and Mashad and with varying altitude was also lying along the route followed. Between Mashad and the Iran/Afghan frontier post there was some sun and cloud with maxima between 13.5° and 17° with minima around 6° . In February it was only on this last stage that any quantity of lizards were found and most of these were dug out of hiding.

In May day-time maxima were still not high and indeed conditions were at their optimum for species activity. The highest recorded was 30.5° near Behshar at the eastern end of the Caspian on May 18th. Otherwise 25° was not exceeded and minima ranged from 12.5° near Mashad on May 16th to 19.5° on the Caspian coast. West of Tehran, as the height rose to the Azerbaijan highlands, rain fell in heavy showers. The stretch between Marand and Bazorgan was appreciably drier and warmer.

ZOO-GEOGRAPHY

Although only a narrow belt of Iran was covered the route passed through several distinct zones and representatives of each region were collected. Close to the Turkish frontier, contiguous with the plains below the foothills of Mt. Ararat, are semi-desert lowlands around 900 meters. Here were found *Eremias strauchi*, *E. pleskei*, *Ophisops elegans*, *Mabuya aurata* and *Malpolon monspessulanus*. In 1964 *Agama caucasica* and *Phrynocephalus helioscopus* were also collected. *E. pleskei* and *P. helioscopus* filter into this area along the valley of the Araks river.

East of Tabriz the road climbs to highlands over 1600 meters in altitude. Here were found *Lacerta brandti*, *E. arguta* and *E. strauchi*.

The unique climatic conditions along the southern Caspian coast have enabled the penetration of elements widely distributed in the more westerly parts of their range in Turkey and S.E. Europe. Only very few of these extend much further east: *Natrix tessellata*, *Ophisaurus apodus* and *Rana ridibunda* as far as the foothills of the Hindu Kush. Species found in the Caspian region included: *Natrix n. persa*, *N. tessellata*, *Coluber n. najadum* and *R. ridibunda*. *Vipera lebetina turanica* was also caught. In addition *Lacerta strigata* represents the *L. viridis/L. trilineata* group. *Lacerta saxicola defilippi* was found immediately on entering the lower slopes of the Elburz and higher up was sympatric with *Agama caucasica*. The Elburz range separates the Caspian zone abruptly from the arid regions of central Iran. Going eastwards from the Caspian the herpetofauna becomes typical of the semi-desert regions of Central Asia. Species found were *Trapelus agilis*, *A. erythrogastra*, *E. persica*, *Messalina watsonana*, *Eryx miliaris* and *Testudo horsfieldi*.

SPECIES ACCOUNT

Tenuidactylus caspius (Eichwald)

Locality: Bojnurd, 1060 m., 17/5.

Description: Ground fawn with 5 dark bands across the dorsum which continued down non-regenerated part of tail. Venter dirty white.

Diagnostic data: body length 54.0; ventrals 25; dorsal tubercles 12 rows; femoral/anal pores 24 in a continuous series; tail plates in 2 rows for first 7 out of 10 segments then 1.

Remarks: this gecko was found in the same locality and at the same time as *Mabuya aurata*. It was basking on the edge of a crack in an earth bank. Another example was seen nearby but escaped down a hole.

AGAMIDAE

Trapelus agilis Olivier

Material examined: 5 males, 3 females, 1 juvenile.

Localities: Torbat-e-Jam 955 m., 22/2; Mashad 1380 m., 16/5.

Description: Ground fawn to grey-brown. A dorso-lateral and vertebral row of light pink or white oval spots, bordered thinly with black. These spots joined transversely with bars of diffuse dark brown forming a shallow 'V'. Markings continuing on tail as alternating light and dark bars. Dark patch at base of forelimb. Head brown with a few dark spots. Flanks partly marked with black, lower flank zone in 4 males either deep purple or dark blue. Belly off-white with scattered black dots aggregating into longitudinal lines on neck. Large purple patches on belly in 2 males. Throat heavily striated with light and dark grey, on 4 males with purple or blue.

Diagnostic data: body length 77-91, juv.48.5; T/B males 2.40-2.92, females 2.35-2.50, juv. 2.71; scales round body 60-76; total preanal glandular pores Males 16-22 in 2 rows, females absent or 6 indistinct pores in 1 row.

Remarks: the specimens caught in February were found near gullies in a baked-earth habitat. 2 were in hiding and those in the open were sluggish. The weather was partly overcast but when the sun broke through there was a burst of reptile activity (time 11.30-13.45, air temperature 17.3°C, ground 18.5°C). *Eremias persica* and *Mesalina watsonana* were also found in hiding with several small scorpions, centipedes, ants, hornets and beetles. No acridids were noted.

Agama caucasica (Eichwald)

Material examined: 4 males 4 females.

Localities: Bojnurd 820 m. 17/5; Minoodasht 700 m. 17/5; Ab Ask (near Amol) 1620 m. 19/5; Ab Ali 2600 m. 19/5.

Description: In a female from Ab Ali the ground forms cream, irregular cross bars with bold black reticulations with the venter light and dark grey.

In the others the ground was fawn-grey with a black network over back and flanks either heavy or fine with the mid-dorsal zone grey. Some orange patches near forelimb and on flanks either pale or in the form of broken cross bars. Tail banded light and dark grey. Venter in males black save for an ochre-grey glandular patch in the midline and near anus; females cream-white. Tail below grey in males, orange-pink in females. Some examples seen in the field at Ab Ask and Ab Ali had striking cream-yellow heads.

Diagnostic data: body length 109-149; T/B oo2.46 oo 2.34 and 2.65; scales round mid-body 146-160; number enlarged spinal rows 11-15; preanal glandular pores oo 40-65 in 4-6 rows oo absent.

Remarks: with the exception of one from Minoodasht which was found on a rock in a forest clearing, all these agamas were seen in open, arid rocky terrain often several being found together. At Bojnurd three were sheltering under the same boulder.

A. caucasica was active from early morning throughout the day in May but daytime maxima were not all high the highest being noted that was relevant to this species being 25° at 13.30 at Bojnurd. Those from the two sites in the Elburz mountains were found with the air temperature around 19°.

Agama erythrogastra (Nikolsky)

Material examined: 3 males 4 females 3 juveniles

Localities: Torbat-e-Jam 1120 m. 15/5; Mashad 1380 m. 16/5.

Description: Ground colour ochre-grey, olive or dusty pink. Black markings over dorsum either as fine dustings or a network. On neck orange or yellow patches in broken bars. Tail banded indistinctly with dark grey. Venter in adult males black with a greyish callosic glandular patch in midline. Throat in males white with large black patches. Females were pink or orange on the underside with some grey markings. Throat as in males but with dark grey markings. Juveniles as adults with the black dorsal markings in the form of broken cross bars. No orange ventrally.

Diagnostic data: body length 121-151, juvs. 62.5-64; T/B 2.07-2.18 (3 specimens only tail complete), juvs. 2.12 and 2.29 (2 specimens); scales round body 95-118; number of enlarged dorsal rows 7-16; preanal glandular pores oo 30-36 in 2 to 4 rows, oo absent in 2 but 20-30 in others in 2 indistinct rows, in juvs. absent.

Remarks: this large agama was common at both localities but difficult to approach as it turned and ran for cover at the slightest hint of danger. The habitat comprised deep holes and crevices in earth banks and cliffs and piles of stones. Some were dug out of hiding but many seen escaped as the tunnels they occupied were long and often branched into several passages. The area in question was poorly cultivated with numerous stream beds and steep-sided gullies.

Some locals assisted in the capture of some specimens. *A. erythrogastra* from near Torbat-e-Jam were active at 14.00. Those from 60 km. S.E. of Mashad were taken between 07.00 and 08.15 with an air temperature of 18.5° and 40% relative humidity. In Clark, Clark & Anderson (1966) it was remarked that this agamid is rare in collections and only known from the Mashad area in Iran and S.E. Turkemistan. However since then it has been found by the Street Expedition to Afghanistan from N.W. Afghanistan and more significantly from Paghman in eastern Afghanistan at 2440 metres elevation (Anderson & Leviton 1969). This indicates a much broader distribution than previously suspected and a considerable altitudinal range.

ANGUIDAE

Ophisaurus apodus apodus (Pallas)

Material examined: 2

Locality: Minoodasht 1120 m. 17/5.

Description: dull red-brown above with a few light olive patches on flanks and head. Underside white-fawn with red and grey patches.

Diagnostic data: Total length 855, 945; body length: 360; 415; scales round mid-body 22 (12 dorsals 10 ventrals); supralabials 12+11, 11+11.

Remarks: *O. apodus* was very common in May in the Gulistan Forest. Six were seen on a short stretch of road east of the collecting site. Of those caught one was dead on the road and the other taken at the base of a bush in a grassy field (air temperature 21.5°, R.H.67%, weather partly cloudy). On the lowlying plains at the eastern end of the Caspian Sea one was found dead on the road. In assigning these specimens to the nominate form I follow the taxonomic designation of Obst (1975).

SCINCIDAE

Mabuya aurata septemteniata (Reuss)

Material examined: 1 female.

Locality: Bojnurd 1060 m. 17/5.

Description: ground olive-grey. On neck 3 broad longitudinal stripes comprised of ground colour in the dorso-lateral and vertebral positions separated by two rows of black flecks. On the body these bands less clearly marked so that the ground has four longitudinal rows of black flecks. Upper flank zone marked with black and brown. Lower flanks greyish/white. Head fawn, venter white.

Diagnostic data: body length 77; T/B 2.53; scales round midbody 36; supraoculars 4; preoculars 2; postoculars 4; supranasals 2 not touching nostril.

Remarks: this skink was found lying in loose, fine soil at the base of an earth bank in hilly, stony country at 08.30, air temperature 20°C.

LACERTIDAE

Lacerta brandti de Filippi

Material examined: 8 males 5 females 9 semiadults.

Locality: Tabriz 2000 m. 24/5.

Descriptions: Males: ground green anteriorly, olive-fawn posteriorly or entirely this colour. Dorso-laterally a double row of white spots and a row of black bars. Black dots on nape, head with black markings. Side of head, neck and anterior flank zone bright green, even on specimens not green dorsally. Hindlimbs with small light ocelli and black network. Usually 3 prominent blue black-ringed ocelli above forelimb. Belly green-yellow. Throat blue or green, also chin and chest. Main outer ventral row marked with blue and black. Underside salmon-pink or orange, paler on tail.

Females: marked as males but ground darker and more brown. Mid-lateral white stripe. Belly more yellow, throat pale blue-green. Less blue on outer ventrals but black edging more pronounced.

Semiadults: as in females but ground paler and black markings finer. Flanks browner.

Diagnostic data: this is presented in Table 1, together with 8 specimens caught in 1964 at the same time.

Remarks: this lizard was only found at this locality 45 km. S.E. of Tabriz and was abundant on earth banks, stone piles and low stone walls. They sought refuge in holes, under rocks and at the base of plants and shrubs. The terrain was hilly and consisted of partly cultivated land above a small lake. *L. brandti* was found to be not a very active lizard and those encountered in the open were easy to catch - time 12.30 to 14.00 air temperature 19.5°C. All the females contained eggs 3-8 mm. in diameter. *L. brandti* has a restricted range in N.W. Iran and the S.E. Transcaucasus. The type locality of Basminsk is between Tabriz and Tehran.

Lacerta saxicola de Filippi Camerano

Material examined: 5 males 2 females.

Localities: Amol 350 m 19/5; Ab Ali 2545 m. 19/5.

Description: Olive-grey above with scattered black dots confined to the vertebral line in two

specimens. An indistinct row of white spots down the dorso-lateral aspect. Flanks darker brown with white dots and black markings. Head brown with black dustings. The Amol specimen has two blue forelimb ocelli and faint blue flank dots. Belly either entirely orange-red (two examples) or with paler orange on outer one or two ventral rows with the main outer row always blue tipped. Throat, chin and underside of tail white, anal region orange.

Diagnostic data: see Table 1.

Remarks: the single example from Amol was found on a rock face by the road in open woodland. Another was seen. The remainder were taken from near the pass crossing the Elburz mountains in rough rock-strewn country with stone walls and small streams. More were seen but they were not common and their retiring disposition made them elusive. Time 13.30, air temperature 19°C. This subspecies is the most easterly of the *L. saxicola* complex which reaches its greatest diversity in the Caucasus region (Darevsky 1966).

Lacerta strigata Eichwald

Material examined: 1 male 3 females 1 juvenile

Locality: Mahmudabad Caspian seal level 18/5-19/5.

Description: Adults – dorsal ground soft moss-green or brownish, one animal plain the others with heavy dark spottings or speckling. Trace of lighter green dorsal stripes (3 examples) and a mid-lateral one (2). Forelimbs mostly green, hindlimbs and tail fawn-grey. Venter from chest forward and outer ventrals metallic green or yellow/green. Rest of venter white with green tinge. Sexes not distinguishable on colouration.

Juvenile – ground brown with darker brown patches. Three dorsal white stripes down length of body and a similar stripe down the mid-flank. Venter uniform white.

Diagnostic data: see Table 1.

Remarks: this lizard was common on the narrow strip of bush and shrub-covered waste ground between the Caspian and the main road, beyond which lay extensive rice fields. The habitat was sandy and the tracks of *L. strigata* were seen on the low hills here and at another site nearby. In addition this species was observed further east between Gorgan and Babol Sar. *L. strigata* was plentiful but very timid and alert running for cover at the slightest disturbance. Since much of the bush cover was dense and thorny they were difficult to catch. Activity was in the early morning (07.00-08.00) and again in the evening (16.00). Air temperatures 22.5° and 25° respectively; R.H. 90% and 73%. Two females had eggs. In one they measured 14 mm. x 9 mm.

Comments on the taxonomic status of *L. strigata*: the reader is here referred to Schmidtler (1986) in which the author questions the validity of *L. strigata* as a self-standing species. There is no doubt that *L. strigata* and *L. viridis* are closely allied. Boulenger (1920) described a series of Green Lizards from the south Caspian coast under the name *L. viridis* var. *woosnami*. Mertens & Wermuth (1960) reinstated the taxon *L. strigata* Eichwald under which this characteristic form was first named in 1831. From the present author's experience with Green Lizards in Asia Minor it can be remarked that *L. strigata*, if allowed as a species in its own right, differs from *L. trilineata* in its consistently smaller size, no larger than *L. viridis*, and in the femoral pores reaching the knee. From *L. viridis* it differs in the body patterning. *L. strigata* has the stripes always in odd numbers persisting into old age. The blue throat, typical of adult male *L. viridis*, is not found in *L. strigata*. Further comparison with *L. viridis* and *L. trilineata* demonstrates that *L. strigata* has a lower dorsal count. In the present author's material from Turkey 45 *L. viridis* from along the stretch of the Black Sea had a range of 45-59 and 55 *L. trilineata* from the whole of Turkey had a range of 39-57 though the majority lay between 42 and 53. Seven examples of *L. princeps* had a range of 33-38. Boulenger (1920) remarked on this similarity of *L. princeps* with *L. strigata*. It should be mentioned that *L. strigata* is the most eastern form of the Green Lizard complex with its most westerly point in extreme eastern Turkey – see Schmidtler 1986.

Ophisops elegans elegans Ménétries

Material examined: 8 males 9 females 2 juveniles.

Localities: Zandjan 1728 m. 23/5; Mianeh 1545 m. 24/5; Tabriz 1758 m. 24/5.

Description: Males – ground grey-fawn. Dorso-lateral white stripe on anterior half of body tending to fragment posteriorly and bordered internally with small black spots or bars on an undulating band. Short black nape stripe. Flanks reddish-brown. Mid-lateral white line and some black markings. Side of head white with grey. Underside white, grey on outer ventrals. Females and juveniles – similar to males but the dorso-lateral white stripe continuing down length and black internal markings in the form of a more or less continuous stripe. Flanks less reddish and reduced black markings.

Diagnostic data: see Table 1.

Remarks: near Zandjan the habitat was stony ground covered with low woody plants. *O. elegans* was active from 09.30 (19.5°) and hid down holes when chased. The specimen from Mianeh was caught at 08.00 (14° R.H. 85%) under a pile of dead vines in a grassy gully. Several more were seen. At the site 80 Km. S.E. Tabriz it was found on broken partly grassy ground near rock outcrops. Nearer to Tabriz the lizard was common on flat, clay steppe with some bush cover. Five females contained eggs which varied in size from 3.5 mm diameter to 10 x 4.5 mm.

Eremias arguta (Pallas)

Material examined: 1

Locality: Tabriz 2060 m. 24/5

Description: ground grey-brown with two longitudinal rows of large white black-ringed ocelli on either side of the mid-dorsal line. Flanks with an indistinct row of similar markings on upper zone. Lower flank grey-white. Venter dull cream.

Diagnostic data: see Table 2.

Remarks: taken from the same site as *L. brandti*. This single specimen, the only one seen, was caught on a stone wall bordering a field. This member of the *Eremias* group has a range from Rumania to Central Asia but only just penetrates Iran in the north.

Eremias pleskei Bedriaga

Material examined: 2 males 1 female 1 juvenile.

Locality: Marand 1090 m. 25/5.

Description: ground black or dark chocolate with five light stripes on neck reducing to four on the body with the vertebral one disappearing. These stripes white or cream and brighter in the two smallest examples. A dorso-lateral stripe 3-4 scales wide. Upper flank as ground with a broad mid-lateral cream stripe. Lower flank grey. Limbs as ground with large white ocelli. Venter cream or white, immaculate.

Diagnostic data: see Table 2.

Remarks: these were found on rough stony terrain in low hilly country. They hid under small plants or down shallow holes but not under stones. The single female contained eggs. The dorsal count for these few specimens seems higher than those caught by the author in Turkey (R 48-60 x 54.6 s 2.70 number in sample 21). The granule count is higher than that quoted by Terentev & Chernov which is given as 24-30. The range of this species embraces southern Armenia and the region of Azerbaijan in N.E. Turkey and N.W. Iran. In contrast to both *E. arguta* and *E. strauchi* it is restricted to the relatively low-lying semidesert plains and does not range into the mountains.

Eremias persica Blandford

Material examined: 3 males 2 females 8 juveniles

Localities: Torbat-e-Jam 955 m 22/2; Mashad 1380 m. 16/5.

Description: adults – dorsum grey-brown. Four rows of elongated black spots about 2 scales wide. Between each row a pale fawn-grey stripe (5 in all). These stripes cover at the tail base the outer rows continuing. Flanks with a 3-4 scale wide cream stripe. Above this is a black band with spots of the ground showing. Venter white immaculate. Hindlimbs black with cream-yellow ocelli. Juveniles – dorsum black with five cream/white stripes. Dorso-laterals continue down tail. Flank black with a mid-lateral cream stripe and a variable row of small light dots. Another light stripe from orbit to forelimb. Venter as adults. Some grey on outer side of neck and throat.

Diagnostic data: see Table 2.

Remarks: those from Torbat-e-Jam were found in February under cool conditions in the early afternoon (17.5°). They were mostly dug out of holes in earthy banks. Three juveniles were discovered together. Only one was active. *Mesalina watsonnana* was fully active (see below). Those taken from near Mashad in May in the early morning (18.5°) were active quickly running to hide under low plants or down holes. A juvenile was seen entering a hole and scraping loose sand across the entrance with its tail. One of the females contained eggs 3-6 mm. in diameter. *E. persica* is very close to *E. velox* but range southwards to southern Afghanistan.

Eremias velox velox (Pallas)

Material examined: 1 male.

Locality: Bojnurd 800 m 19/2.

Description: dorsal ground colour fawn-grey with small black dots. A row of white ocelli down dorso-lateral aspect, partially black-edged. Another row of green dots mid-laterally. Some black spotting on flanks. Venter white.

Diagnostic data: see Table 2.

Remarks: this single example was found at midday moving clumsily along a sunny earth bank in open country. With an air temperature of 17.5° and a ground of 30.5° this lizard showed little activity. This specimen of *E. v. velox* came from the region where the three closely related species (*E. v. velox*, *E. persica* and *E. strauchi*) apparently converge. *E. v. velox* ranges from the Caucasus far into Central Asia.

Eremias strauchi Kessler

Material examined: 1 male 2 females.

Localities: Tabriz 2060 m. 24/5; Marand 1090 m. 25/5.

Description: Grey-brown ground with a double row of white dashes down and parallel to the vertebral line, the other being down the dorso-lateral aspect. These markings are variable in their consistency. Black spots on the dorsum as well as smaller dark flecks. On upper flanks a row of white or green ocelli. Lower flanks creamish with some black. Hindlimbs with black flecks and white ocelli. Underside white, chin cream.

Diagnostic data: see Table 2.

Remarks: the specimen from 45 Km. S.E. Tabriz was taken near to where *E. arguta* was found while the two from Marand were sympatric with *E. pleskei* on rock outcrops amongst low stony hills. Time 10.00, 23°. Neither female contained eggs. This member of the *E. velox* complex occupies a strip of territory from the Caucasus to about the Kopet Dag in N.E. Iran.

Mesalina watsonnana (Stoliczka)

Material examined: 18 males 2 females.

Localities: Mashad 1300 m. 20/2; Fariman 410 m. 21/2; Torbat-e-Jam 955 m. 22/2.

Description: ground brown or greyish. Two rows of white ocelli dorsally and one row dorso-laterally prominently black-edged. Dorso-lateral row tending to form a stripe. Head plain and as dorsum. Flanks with a white stripe mid-laterally and above this a few white dots ringed with black. Lower flanks marked with black. Entire underside whitish, outer ventrals dark grey. Hindlimbs marked with black and white.

Diagnostic data: see Table 1.

Remarks: the four specimens from Mashad and Fariman were found in flat, open country with little vegetative cover. Conditions were cool and cloudy with air temperature around 14°. One was dug out of a shallow hole. At the site near Torbat-e-Jam the weather was warmer and sunny and this lizard was markedly active darting around low plants and hiding in deep holes. The habitat was a series of gullies in a dry, flat, baked-earth area. Here it is sympatric with *E. persica* and *T. aigilis* which showed lower activity levels. It is clear that *M. watsonnana* is active at much lower temperatures than most other reptiles in this region. The two females contained eggs 3 mm. in diameter. This species is ubiquitous in semi-desert habitats in S.W. Asia. Here it is found towards the northerly limit of its distribution.

BOIDAE

Eryx miliaris (Pallas)

Material examined: 1 female.

Locality: Torbat-e-Jam 955 m. 15/5.

Description: ground pink-fawn with slightly slanting khaki cross bars 3 scales deep often broken or alternating along the midline. Between these pale orange spots prominent near tail base. Head uniform grey. Dark stripe from orbit to angle of jaw. Vertebral grey line half-a-scale wide down length. Flanks marked with short darker bars and spots. Venter and lower flanks white, patches of grey-orange along mid-ventral line.

Diagnostic data: total length 442 mm., tail 32 mm; dorsals 48 ventrals 199 anal entire. Subcaudals 14 in single plates and then 6 rows of double plates. Circumoculars 12 each side including a single enlarged subocular. Interoculars 6 on each side.

Remarks: this was found freshly killed on the road during the late morning. The surrounding countryside was open and flat with low woody plants on an earthy soil.

This specimen was similar to 3 *Eryx* caught in northern Afghanistan though of larger size, the biggest Afghan specimen totalling 375 mm. The Afghan sample was assigned to *E. tataricus* and the identification of the present example is rather open. The four scales posterior to the internasals agree with *E. miliaris* although the ventral count is more in accordance with *E. tartaricus*. Since head scalation is less variable I prefer placing this with *E. miliaris*. Both species could be expected in this region. It is worth mentioning that the Afghan examples were found in sandy desert.

COLUBRIDAE

Natrix n. persa (Pallas)

Material examined: 4 males

Localities: Gorgan 200 m. 17/2; Babol Sar Caspian sea-level 18/5.

Description: ground olive-grey or brownish. Dorso-lateral yellow stripes present but faint in one. Small dark patches present internally to each stripe, absent in one from Gorgan. Flanks with two rows of larger, dark patches. Moon patches small, clear, yellow. Throat and chin white. Venter marbled with white and black.

Diagnostic data: total length 471-732 mm.; body length 363-573 mm; dorsals 19, 17 in one. Ventrals 177-188, anal divided. Subcaudals 71-82 in 2 rows. Supralabials 7+7, with the 3rd. and 4th. bordering the lower orbit.

Remarks: the two from Gorgan were found in bramble thickets in a field at 14.00 (16°, R.H. 58%). Weather partly cloudy with some sunshine. Another was seen. The terrain was dry with no water in the vicinity. The two from Babol Sar were seen crossing the road at 16.00 (25°). Many more were seen. On either side of the road there was wasteground and some cultivation. In February this snake was hardly in evidence though by May it was extremely abundant.

Natrix t. tessellata (Laurenti)

Material examined: 1

Locality: Tasabriz 2000 m.; 24/5

Description: ground light olive-yellow with darker greenish patches on the dorsum and flanks. Throat and neck rich cream then with an increasing amount of black on the venter. Tail below nearly uniform black.

Diagnostic data: total length 497 mm. Body length 403 mm. Dorsals 19. Ventrals 178, anal divided. Subcaudals 63 in 2 rows. Supralabials 8+8, the 4th bordering the orbit.

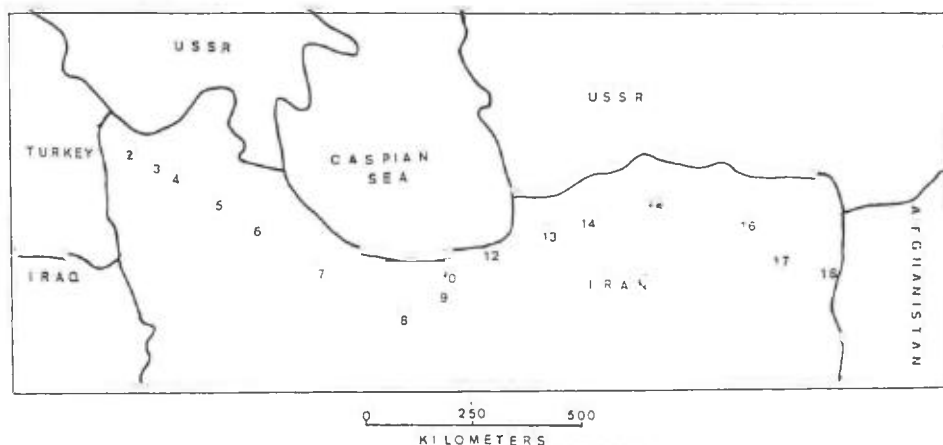
Remarks: this was found in a dry gully some distance from the lake. Sympatric with *L. brandti*.

Coluber n. najadum (Eichwald)

Material examined: 1 male

Locality: Mahmud Abad, Caspian sea-level; 19/5.

Description: dark olive-grey. 16 white encircled neck patches, gradually reducing in size, Labial's cream, dustings of fawn on supralabials. Entire venter cream-white, immaculate.



MAP OF NORTHERN IRAN

Localities mentioned in text

1	Bazorgan	10	Amol
2	Maku	11	Mahmudabad
3	Marand	12	Babol Sar
4	Tabriz	13	Gorgan
5	Mianeh	14	Minoodasht
6	Zandjan	15	Bojnurd
7	Qazvin	16	Mashad
8	Tehran	17	Torbat-e-Jam/Fariman
9	Ab Ali	18	Taibad

Diagnostic data: total length 1212 mm.; body length 895 mm. Dorsals 19. Ventrals 223 anal divided. Subcaudals 109 in 2 rows. Supralabials 8+8 with the 4th and 5th bordering the lower orbit.

Remarks: this very large specimen, the largest that I have personally examined, was taken at the same site as for *L. strigata*. It was seen lying in a low bush at 08.00 (22.5° R.H. 90%) and hid in the undergrowth. Half-an-hour later it reappeared and was caught as it attempted to hide in a pile of refuse. The subcaudal count is lower than I have noted on my extensive Greek and Turkish material although within the range for the species. In Iran this is a species whose distribution is limited to the north of the country from Azerbaijan to the Kopet Dag.

Coluber r. ravergieri Ménétries

Material examined: 1 female

Locality: Tabriz (100 km. S.E.) 1640 m.; 24/5.

Description: ground fawnish with a double row of alternating small brown patches on dorsum uniting into cross bars on posterior third of body and into a mid-dorsal line on tail.

Diagnostic data: total length 866 mm.; body length 659 mm. Dorsal 21. Ventrals 213 anal divided. Subcaudals 93 in two rows. Preoculars 3, postoculars 3. Loreal 1 and an additional small scale below posterior part of loreal and partly replacing the 4th supralabial. Supralabials 9, the 5th and 6th touching the orbit with the 6th joined to the lowest postocular.

Remarks: this snake was seen disappearing under a boulder on a rocky outcrop at 10.00, 21.5°. This snake agrees with the description given by Smith (1943) except in having an additional

TABLE 1
Diagnostic characters of the Lacertid lizards of Northern Iran

	<i>L.brandti</i>	<i>L.saxicola</i>	<i>L.strigata</i>	<i>O.elegans</i>	<i>M.watsonnana</i>
Body length	r 50-67	r 39-51	r 72.5-101	r 34.5-53.5	r 42.5-54
	\bar{x} 62.37	\bar{x} _____	\bar{x} _____	\bar{x} 44.82	\bar{x} 48.9
Dorsals	r 49-58	r 43-51	r 35-43	r 22-31	r 38.47
	\bar{x} 52.40	\bar{x} _____	\bar{x} _____	\bar{x} 27.0	\bar{x} 42.6
Femoral pores	r 14-22	r 14-18	r 18.21	r 8-12	r 10-13
	\bar{x} 18.23	\bar{x} _____	\bar{x} _____	\bar{x} 10.2	\bar{x} 11.53
Granules	r 6-15	r 10-15	r 3-9	r 9-13	r 13-25
	\bar{x} 9.52	\bar{x} _____	\bar{x} _____	\bar{x} 10.8	\bar{x} 17.85
Supratemporals	r 2-3	r 1*	not taken	r 1-3	absent
	\bar{x} 2.75	\bar{x} _____		\bar{x} 1.97	absent
Masseteric	r 0-4	r 1-3	r 3-4	absent	absent
	x 1,38	x _____	x _____	absent	absent
Occipital	r 0-2	r 1-4	r 0-2	r 2-4	r 1-4
	\bar{x} 1.18	\bar{x} _____	\bar{x} _____	\bar{x} 3.58	\bar{x} 0.84

* the supratemporal extends 1/3 – 2/3 length of parietal. r range. \bar{x} mean.
_____ sample too small to calculate mean.

Occipital size: 0 (absent) – 4 (equals interparietal). Masseteric size: 0 (absent) – 4 (very large)

TABLE 2
Diagnostic characters of lizards of the genus *Eremias* (Lacertidae) of Northern Iran

	<i>E.v.velox</i>	<i>E.strauchi</i>	<i>E.persica</i>	<i>E.pleskei</i>	<i>E.arguta</i>
Body length	59.5	r 58.5-67	r 70.5-83	r 38.5-52.5	45
	-	\bar{x} _____	\bar{x} _____	x _____	
Dorsals	53	r 53-60	r 55-66	r 56-61	51
	-	\bar{x} _____	\bar{x} 59.8	x _____	
Femoral pores	19+20	r 16-19	r 17-21	r 15-16	8+8
		\bar{x} _____	\bar{x} 19.6	\bar{x} _____	
Granules	52*	r 23-44**	r 18-44*	r 38-60**	41+45*
		\bar{x} _____	\bar{x} 29.4	\bar{x} _____	
Supratemporals	absent	absent	absent	absent	4+4
Masseteric	absent	absent	absent	absent	absent
Occipital	absent	absent	absent	absent	absent
Supralabials	6	5-6	5-7	6	+

* granules encircle supraoculars. ** granules do not encircle supraoculars. r range. \bar{x} mean.
samples too small to calculate mean. + subocular not part of supralabial series.

small loreal and from that of Terentev & Chernov (1949) in having 3 postoculars instead of 2. The species is distributed widely but spasmodically from western Asia Minor to N.W. India. Nowhere common.

Malpolon monspessulanus insignitus (Geoffroy)

Material examined: 2

Localities: Qazvin 1275 m. 22/5; Marand 1090 m. 25/5.

Description: the snake from Qazvin was uniform olive-grey above and cream-white below. The Marand snake had two rows of longitudinal fawn flecks on outer ventral zone and faint dark flecks dorsally.

Diagnostic data: total length 1197, 877 mm; body length 910, 670 mm. Dorsals ?, 17. Ventrals 181, 174 anal divided. Subcaudals 81, 83 in two rows. Supralabials 8, the 4th and 5th bordering the orbit.

Remarks: both of these were found freshly killed on the road, the one from Qazvin being severely damaged.

Vipera lebetina turanica Cernov

Material examined: 1 male.

Locality: Gorgan 240 m. 18/5.

Description: ground grey-fawn. On neck a vertebral row of dark markings with a streak on dorso-lateral aspect. Down the body these markings form a zig-zag breaking in places to give alternating patches. Flanks with a main row of large dark spots and on lower flanks further dark markings. Head above uniform with dark streak from eye to angle of jaw. Venter dirty white heavily powdered with grey and large grey spots. Throat and neck largely immaculate.

Diagnostic data: total length 920 mm; body length 800 mm; mid-body girth 102 mm. Dorsals 25. Ventrals 170 anal entire. Subcaudals 43 in two rows. Supraocular 3+. Pre/sub/postoculars 13+12. Interoculars 8. Supralabials 10+11.

Remarks: this snake was found lying in a hedge bordering a field at 10.00, 27° R.H. 56%. The situation was cool and shady. To prevent escape the snake was seized and thrown into the open whereupon it showed a determined attempt to get back into cover. In moving it raised the anterior part of the body clear of the ground and struck out viciously while in motion, flattening the head and neck. Capturing this viper proved quite difficult. Another was spotted nearby but escaped.

This specimen differed from two caught in Turkey (*V. lebetina obtusa*) only in patterning. The Turkish snakes had no dorsal zig-zags. Klemmer (1963) gives the range of *turanica* as including N.E. Iran. The Caspian locality is about at the most western point of the range which extends eastward to N.W. Pakistan and western Kashmir (Gruber 1989).

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