

No. 103. Life History and Ecology of the Chipmunk, <i>Eutamias amoenus</i> , in Eastern Washington. By Harold E. Broadbooks. (1958). Pp. 48, 3 plates, 6 figures.	\$0.95
No. 104. Catalogue of the Odonata of Michigan. By Edward J. Kormondy. (1958) Pp. 43, 1 map.	\$0.65
No. 105. The Male Phallus in Mice of the Genus <i>Peromyscus</i> . By Emmet T. Hooper. (1958) Pp. 24, 14 plates, 1 figure	\$1.15
No. 106. The Mammals of Iraq. By Robert T. Hatt. (1959) Pp. 113, 6 plates, 1 map	\$1.50

To Harold Coolidge —
with compliments
Feb

MISCELLANEOUS PUBLICATIONS
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, NO.

The Mammals of Iraq

ROBERT T. HATT
Cranbrook Institute of Science

ANN ARBOR
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN
February 12, 1959

Much superstition attaches to the hyena. A native hunter circumcised our specimen, and I was told that among the uneducated one who carries such a charm is considered immune from danger when traveling. A sweeper asked for the eyes of the hyena with which to make medicine to heal the eyes of a neighbor's child, then decided against taking them lest the medicine fail and he be accused of substituting the eyes of another animal.

The report of the spotted hyena in Iraq (Metaxas, 1891: 322) is undoubtedly in error, although the species occurred in western Asia in the Paleolithic.

Felidae

In regard to the Arabic names for the wild cats, Corkill (1930: 232) said: "What is 'gurta' to one man is 'herreh' to another and merely 'bizoon' or 'saba' to a third; 'washa' is another common name for a 'big cat.'" "Kuth" in Arabic is cat; "wahshee" is wild.

Felis catus Linnaeus

Domestic cat; kuth, kutta, bizoon (Arab.); pesheela (Kurd.); kedi (Turk.); gorbeh (Pers.).

Felis catus Linnaeus, *Syst. Nat.*, ed. 10, 1 (1758): 42. *Type locality*: Uppsala, Sweden (Thomas, *Proc. Zool. Soc. London* 1911, 1911, p. 136).

House cats are commonly kept, or tolerated, in every permanently settled area which we visited. A visitor to Baghdad can see the full range of color pattern of the species among the large population of feral cats that infest the lawn of any riverside hotel. Metaxas (1891: 324) wrote that cats were often kept by the Bedouins though there would seem to be little advantage to a nomad in keeping cats. Thesiger (1954) notes that few cats are kept by the Swamp Arabs.

Whether there is interbreeding between *Felis libyca* and *F. catus* in Iraq is not reported. I saw a domestic cat in Sulaimaniya marked precisely like *F. libyca*.

Felis libyca iraki Cheesman

Indian desert cat

Felis ocreata iraki Cheesman, *Journ. Bombay Nat. Hist. Soc.*, 27 (1920): 331. *Type locality*: Kuwait. Also one from Shaikh Saad on the Tigris.

Specimens in the Iraq museum from Baghdad and Diwaniya (Nos. 28 - 29) appear to be this species. They have well-marked leg bars, short ear tufts, and moderately long tails. The backs of the ears are red.

Pitman (1922: 475) reported seeing a cat, which may have been of this species, beside the Tigris between Kut al Imara and Baghdad. He described it as smaller than *Felis chaus*, grayish buff in color, and spotted blackish.

Felis libyca nesterovi Birula

African wild cat

Felis ornata nesterovi Birula, *Ann. Mus. Zool. Petrograd*, 21 (1916), suppl.: 1-ii. *Type locality*: "Nachr-Chasasch," southern Iraq.

There appears to be no second record for this cat.

Felis chaus furax de Winton

Jungle cat, booted cat, swamp lynx; bizoon, bizoon el berr, cot-wahshee (Arab.); pesheela-kaywee, pisheek-kaywee, kitkakive, kithakaywee (Kurd.); katakivi (Neo-Syriac); gorbaya vahshi (Pers.); pishik (Turk. in Iraq), yaban kedi (Turk. in Turkey).

Felis chaus furax de Winton, *Ann. Mag. Nat. Hist.*, Ser. 7, 2 (1898): 293. *Type locality*: Near Jericho, Palestine.

Specimens: 2. Hilla; Dujail, male.

Measurements: Adult male (Dujail), head-body 745 mm., tail 280, foot 189, ear 80.

The common wild cat of the river bottoms is *Felis chaus*. It was reported as common by Ainsworth (1838: 37-38) and by Kinnear (1916: 5), who mentioned a specimen. Cheesman (1920: 330) listed 7 specimens from Iraq, including ones from Amara, Qalat Salih, Madij, and Shahraban. Pitman (1922: 475-76) caught one between Al Qurna and Al Azair and saw others along the Tigris between the Shatt al Adhaim and Ad Dawr. Sanborn (1940: 159) reported a specimen from the "Hilla Desert."

Hunting by car in the early evening along the banks of the flooded Hilla Canal, we flushed a jungle cat in the brush at the water's edge. The cat ran at about 32 km. per hour along the river road. When fired at, it put on a burst of speed and disappeared in heavy cover. Other animals active in the area at the same hour were wild pig, jackal, ducks, black partridge, and a host of frogs.

Felis lynx dinniki Satunin

Caucasian lynx, forest lynx, red lynx; wishek, wahrshek, wushak (Kurd.).

Lynx dinniki Satunin, *Mem. Cauc. Mus.*, Ser. A., 1 (1915): 391. *Type locality*: Northern Caucasus.

Specimen: 1. Baghdad market, native skin.

The lynx is presumably limited to the forest and brushlands of the north and east. Ainsworth (1838: 38) first reported it "in the woody districts," presumably of northern Iraq. A richly colored specimen from Zakho, collected by Captain L. Fitzpatrick, is in the British Museum (labeled *L. pardina orientalis*). A Kurd living in Baghdad referred to the lynx as being "fairly common." Charles A. Reed (in a personal communication from Erbil Liwa, dated December 20, 1954) reported that two were

brought into Shaikh Pousho's village during the winter of 1953-54 and that other reports indicated that lynx occurred all over the mountainous area of Erbil Liwa but were exceedingly rare.

Felis caracal schmitzi Matschie

Caracal, desert lynx; itfah, niss (Arab.); kara-kulak ("black ears," Turk.).

Felis (Caracal) caracal schmitzi Matschie, S. B. Ges. Nat. Fr. Berlin 1912, 1912: p. 64.
Type locality: The Dead Sea region, Palestine.

The caracal must be rare in Iraq for there are only a few references to it. Kinnear (1916: 5) referred to a specimen from Mesopotamia, and Cheesman (1920: 330) wrote that the only authentic record known to him for the area was a specimen obtained by Loftus at Dezful, Persian Mesopotamia; possibly the same one cited by Kinnear. Corkill (1930: 232) published a photograph of an animal shot near Rutba which he identified, apparently correctly, as a caracal. Aharoni (1930: 332) referred to the caracal as frequent in Mesopotamia, but I wonder if he did not have *Felis chaus* in mind. Dickson's report (1949: 465) of lynx in Kuwait and north-eastern Arabia must refer to the caracal, and presumably the red-haired and black-eared lynx of Metaxas (1891: 323), reported in the region of Basra, was also the caracal.

Panthera pardus Linnaeus

Leopard, "snow leopard" in Iraq; nimr (plural, anmar; classic Arab.), fahad, namir (spoken Arab.); pling (Kurd.), palang (Kermanji Kurd.); nimra (Neo-Syriac); plang, babr ("tiger," Pers.); leopar, pars, kaplan, ushek (Turk.).

Felis pardus Linnaeus, Syst. Nat., ed. 10, 1 (1758): 41. Type locality: Egypt.

Specimen: 1. Baghdad market, native skin.

Leopards in Iraq live in the mountains, where they are said to hunt wild goats and sheep, and are occasionally found in the lowlands. Charles A. Reed has provided these notes about the mountain areas.

Leopard, it is commonly agreed, is very rare everywhere in the mountains of Erbil and Mosul liwas. I did not collect one, although one of my hunters was particularly keen on getting a leopard, since he had shot two the winter before (on Harir Dagħ), and so had a reputation to maintain. Even he, however, admitted that seeing two in one year was unusual, and said that some hunters had been in the mountains twenty years without ever having seen one.

Leopards (always called "tigers") are said not to be so destructive to livestock as wolves and bears, but I could never manage to understand whether this was because they are rarer than wolf and bear, or because they would be less destructive even if they were as numerous as these two.

Pocock (1930b: 78) recorded a skin from Rawanduz; Field (1955b: 60) reported them on Jabal Baradust. Robert Angorly of Maqil states that a Colonel Penant shot one in 1945, just above Kut al Imara, and that they

live in the Poshtkuh mountains across the Iranian border, but descend to the plains during severe winters. Metaxas (1891: 322) reported their occurrence on the right bank of the Euphrates. Three leopards were reported (Musil, 1927: 75) to have been shot in the summer of 1911, above Al Emerijje, near Rawa, where these cats live in rocky ravines. My specimen from the Baghdad market, and a mounted specimen in the Iraq Natural History Museum, accessioned in 1950, are without data. That leopards were familiar to the ancient Assyrians is attested by the frequency with which they were depicted in early art (VanBuren, 1939: 10).

The leopards of Iraq, to judge by the two skins which I have seen and by the frequent references to "snow leopards" in the Zagros, are very light in color. Hunters in Iraq told me, however, that not all leopards were light in tone. The legend of the snow leopard of western Asia has been recorded and ably refuted by Danford and Alston (1880: 51), and by Pocock (1930a: 76, 324).

The specimen from Rawanduz reported by Pocock in his revision of the panthers was referred to *Panthera pardus saxicolor* of Persia. The light specimens of Iraq would seem to be better grouped with *P. p. tulliana* of Asia Minor.

Panthera leo persica Meyer

Lion; saba, asad (classic and spoken Arab.), labonaa (female, classic Arab.), labwa (female, spoken Arab.); sher (Kurd.); aslan (Turk.).

Felis leo persicus Meyer, Dissert. Inaug. de genere Felium [Vienna]. Beitr. Anat. des Tieggers, 1826, p. 6. Type locality: Iran.

The lion has been conspicuous throughout the course of Mesopotamian history, and became extinct only after the use of rifles had become widespread. Earliest cylinder seals from Protoliterate times portray the lion (Frankfort, 1955: *passim*); pairs of lions are shown attacking flocks defended by herdsmen (MacKay, 1925: 59). In Assyrian times the lion figured prominently in the great royal hunts. In dramatic sculptural reliefs Assur-bani-pal is shown on foot slaying lions; also shown are other hunts from chariots, and boats. A lion is portrayed attacking a boat; a wounded lion is shown dragging its hind legs and coughing blood; others are dead, with priests pouring libations over the corpses (Gadd, 1936: Pls. 37, 38, 45; Budge, 1914: Pls. 12, 42; Meissner, 1920, 1: Figs. 50, 197, 198). Assur-nasir-pal II had engraved on a stela at Nimrud (circa 879 B.C.) his boast that he slew 450 lions and captured 20 alive for his zoo, where he bred them (Wiseman, 1952: 24). A good summary of the Assyrian record was presented by Houghton (1877: 322-26).

In 1807, Olivier (4: 392) described five lions from Basra seen in the menagerie of the Pasha of Baghdad. Chesney (1850, 1: 108) noted that lions were not numerous in Mesopotamia in 1835-37, but in his report of 1868 (pp. 71, 89) he told of a lion he saw in 1855 on the Euphrates between Ana and the great bend in the river above Haditha. Lady Blunt (1896: 77-80), following the river in 1878, found that lions occurred near Racca

(Syria) and below. A Bedouin was killed by a lion near Racca in 1875. The buffalo-raising Afuddli tribesmen hunted lions by wounding them with spears and driving the buffalo in to trample the beasts. Along the upper Euphrates, Lady Blunt noted, the lions inhabited the thick tangle of tamarrisk, bramble, and honeysuckle which extended back from the river, and where wild pig abounded. But, she observed, a lion was shot along the Tigris in 1881 at a point where there was no jungle. Layard (1852: 271) noted that lions were frequently encountered on the banks of the Tigris below Baghdad, but rarely above, and that on the Euphrates they were found almost as high as Bir (far below the locality reported by Chesney). Layard (1859: 415) told of a tame lion which roamed the bazaar at Hilla, feeding from the butcher's stalls without interference. He also wrote (p. 481) of the abundance of lions in the marshes of southern Iraq, and of a method the Arabs used to capture lions in their dens.

Ainsworth (1838: 37), reporting from the Euphrates expedition, wrote that the lion was met along the lower reaches of the Tigris and Euphrates. He noted a brown lion from the banks of the Tigris, then captive in Baghdad, and wrote that lions were found "as far north as Balis." Kinnear (1920: 33-37) quoted reports that lions were abundant around Mosul in 1840, but rare by 1848-49. A "Babylonian lion" living in the London Zoo in 1862 had been presented as a cub in 1856 (Weinland, 1862).

Many records of lions are found in the diaries of Joseph Swaboda, who operated a steamer between Basra and Baghdad late in the nineteenth century. His notes on lions were published by Serkis (1951) and Kasper-Khan (1951) in the *Iraq Times*, the English-language newspaper of Baghdad. Because these issues are generally unavailable, the records are abstracted here. Swaboda noted lions as follows:

- 1865, Qalat Salih
- 1866, Memshlah (Iran), Seleucia, Seajafra
- 1869, Fort Baghdadiah
- 1870, Fort Baghdadiah, Dawr Reach, Sened
- 1874, Shejar, Shedif, Humenich, Sened, Al Azair (where a lion killed a man), 4 were shot on March 19 when the river banks were flooded — 3 were females and one was a male measuring 9 ft. 5 in. (28.25 m.) long and weighing 420 lb. (190 kg.)
- 1876, Fort Taaj, Baghdadiah Reach (one lion shot)
- 1877, An Nasiriya
- 1878, below Al Azair (one lion shot)
- 1881, Al Muntafiq
- 1884, Huwayzah (killed a man)
- 1887, Gutnyeh, Rubaiya
- 1889, Husamah district

The Swaboda journals were not completely reproduced in the articles in the *Iraq Times*, and there is no reason to believe that, even for those trips for which his records are published, Swaboda noted all lions seen or known to him. They were, obviously, relatively common in the period covered.

In 1876 Blanford, in discussing the distribution of the lion in this region (p. 29), wrote that "at the present day [it] is found in Mesopotamia on the west flanks of the Zagros and east of the Tigris Valley and in the wooded range south and south-east of Shiraz."

Metaxas (1891: 321), who lived in Iraq in the 1880's, wrote that lions were less commonly seen than formerly, but were still found in the jungles of lower Mesopotamia near the Persian frontier as well as on the banks of the Euphrates.

Additional records from the nineteenth century and earlier were summarized by Kinnear (1920: 33-39) and Harper (1945: 293-94).

Although the lion is now extinct in Iraq, its disappearance has been quite recent. The Berlin Zoo was given a pair of Mesopotamian lions in 1909 (Kinnear, 1920: 37). Two captive lions, alive in Baghdad in 1912, were reputedly taken as cubs near An Nasiriya. Harper (1945: 293) quoted reports by Edward Thompson (*The (London) Times*, Aug. 19, 1932) that a lion cub was brought through an Arab village near Sanniyat in 1916, a lioness and cubs were seen near Ahwaz, Persian Mesopotamia, in 1917, and a lion was shot in the wadi marshes that same year. Robert Angorly of Maqil told me that the last Iraq lion was killed in 1918 on the lower Tigris. Cheesman, about 1918, wrote from Iraq that he and Sir Percy Cox had news of a lioness and her cubs not far from their headquarters (Pocock, 1930a: 641).

Becker (1934) found in his search for evidence of the survival of lions in Iran and Iraq that a lion was killed near Shiraz in Iran in 1923 and that the body of a lion was found in the Karun near Ahwaz about the same year. In the reedy swamps on the lower Euphrates and Tigris no traces of lions were found and Becker concluded that the military activities of World War I had accounted for the last lions there. As recently as 1931 (Sinclair, 1938) these cats were reported by a party of American engineers who, in the wild and mountainous region around Dezful in Iran, saw a pair of full-grown lions that showed no fear. Walter Koelz reported (*in litt.*) that he was told that lions still existed in the Karun jungles of Iran when he was collecting there in 1944, but he discounted the stories.

No specimen of Mesopotamian lion appears to have survived, though a lion killed in 1874 at Al Azair was preserved at least until 1917 as a mounted specimen in a Baghdad residence.

Acinonyx jubatus venaticus Griffith

Cheetah, hunting leopard; fahad, taiha (Arab.)

Felis venatica Griffith, *Vert. Anim. Carnivora*, 1821, p. 93. *Type locality*: India.

The cheetah, which is rapidly approaching extinction in the plains and deserts of Iraq, is well known but not often recorded, and is not represented, so far as I am aware, by a single Iraq specimen. Ainsworth (1838: 37) reported it not uncommon in the low districts of the Tigris and Euphrates, and saw a captive in Baghdad. Danford and Alston (1880: 52) quoted a report of a cheetah killed among rocks near Sevi, a small village on the upper Euphrates, in Mesopotamia. Bedouins trained cheetahs for gazelle hunting in the nineteenth century, according to Metaxas (1891: 323).

Corkill (1929: 700) told of a cub secured at Jumaimu, Muntafiq, in

1925, and two cubs taken near Al Busaiya in the Shamiya Desert. Robert Angorly reported cheetahs rare in the desert west of Basra and recalled having shipped one from Basra in November, 1926. The cheetah was reported for Kuwait by Dickson (1949: 465).

A hunter at K-3 reported to us that cheetahs occur in that area, principally to the westward in the Syrian desert between the Tripoli and Haifa pipelines. We also heard that southeast of Baghdad the Arabs hunt for them (not with them), but that the people of the Haditha district fear them. A commonly sold post card in Baghdad shows a captive cheetah, probably one kept by the late Mr. Eastwood in his private zoo.

Since about 1950 four cheetahs have been killed in Saudi Arabia, just south of the Iraq border, according to Lee Merriam Talbot (*in litt.*, 1956). He learned that those nearest Iraq were "a few miles south and some miles east" of the intersection of the Saudi Arabian, Jordan, and Iraq borders, where employees of Aramco, working on the Tapline project, killed the animals.

PROBOSCIDEA

Elephas maximus Linnaeus

Elephant

Elephas maximus Linnaeus, *Syst. Nat.*, ed. 10, 1 (1758): 33. *Type locality*: Ceylon.
Elephas maximus asurus Deraniyagala, *Proc. Fifth Ann. Sess. Ceylon Assoc. Science*, Pt. 3, 1950, p. 11. *Type locality*: Euphrates valley.

The inclusion of elephants as members of the indigenous fauna of Iraq is based on several records. In early Mesopotamian art only one representation of the elephant is known. It is from the Late Akkad period (circa 2100 B.C.) on a seal of Indian style from Tel Asmar. On this seal an Asiatic elephant is depicted with a rhinoceros and a crocodile. The stone is generally believed to be one brought in from the Indus Valley where these three species were native (Frankfort, 1955: Pl. 61). On the Black Obelisk (see Layard, 1853: Pl. 56) an Asiatic elephant is shown in the tribute of Musri to Shalmaneser III (859-824 B.C.). The Assyrian kings, Tiglathpileser I (1115-1102 B.C.), Adadnirari II (911-889 B.C.), Assur-nasir-pal II (884-859 B.C.), and Shalmaneser III, all recount the elephants they killed. The Broken Obelisk records of Tiglathpileser I: "Elephants with his bow he brought down and... elephants he captured alive." He took some of them alive to his city of Assur. Assur-nasir-pal II boasted that he slew 30 elephants (Hilzheimer, 1926: 143-45; Budge and King, 1902: 133, 205).

In view of the fact that no other representations have been found, Van Buren (1939: 177) suggested that these elephants were merely animals brought in tribute or used to stock royal hunting parks. Yet animals are shown in early art for mystic or curative reasons, not just as decorative accessories, and many animals which were abundant are not depicted; thus, the rarity of elephants in the record is not necessarily evidence that they were not present.

In Iraq physical evidences of elephants (other than carved ivory) are

apparently confined to two teeth. At Barda Balka an unerupted molar of an Asiatic elephant has been recovered in Upper Pleistocene deposits (perhaps 100,000 years old) in association with implements of Acheulean type (Wright and Howe, 1951: 109, and letter from F. C. Fraser to R. J. Braidwood). In the Iraq Natural History Museum is a molar from Lake Habbaniya, which Deraniyagala has identified as "*E. maximus asurus*" (Bashir Allouse, *in litt.*).

There are several documents indicating that the elephant was indeed common as a wild animal in the area west of present-day Iraq and, possibly, along the Euphrates in this kingdom. The Egyptian Pharaoh Thutmose II (1508-1504 B.C.), after his return to Egypt from an Asiatic campaign, depicted on the walls of the temple of Hatshepsut a record of his tribute from the vanquished, recording elephants from Nij. Thutmose III (1482-1450 B.C.), after the capture of Nij in 1464 B.C., organized a great ivory hunt against a herd of 120 elephants, and in the hunt was saved from a charging elephant by his general, Amenhep, who cut off the elephant's trunk (Breasted, 1919: 271, 304; Hilzheimer, 1926: 143-45; Arnold, 1953: 77; and others). Although this hunt has generally been supposed to have taken place along the Euphrates east of Aleppo, Gardiner (1947: 163), on rereading the original, would put the elephant hunt during the return journey from Aleppo, and thus in the hills southwest of that city, perhaps along the Orontes.

The head of an elephant femur, Robert Braidwood told me, was recovered from among hearthstones on the plains of Antioch (now in Turkey) at a site dating between the fifteenth and thirteenth centuries B.C.

In summary, there appear to have been Pleistocene elephants in Iraq, similar to modern Indian elephants, although the two known teeth could have been carried to Iraq from a remote area. The Assyrian kings of Mesopotamia hunted elephants at least until the ninth century B.C., but the records are not conclusive as to where the elephants were hunted. If the Gardiner translation of the Thutmose hunt near Nij is accepted, it is only a presumption that elephants in that period occupied the Euphrates basin. The elephant is not mentioned in the later Babylonian texts and it may be assumed that the last of the Syrian-Iraq elephants was gone. The introduction of the horse as a domestic animal, about the fifteenth century B.C., may have helped to make the hunts more successful.

The Mesopotamian elephant, it appears, was a sacrifice to the quest for ivory and to sport, and perhaps, as Dodge (1955: 20) suggested, a victim of overgrazing by goats, which made the country unsuited to elephants through resultant aridity and steppe formation.

SIRENIA

The dugong, which ranges into the Gulf of Aqaba (Bertram, 1943), appears to be unrecorded for the Persian Gulf, but it is perhaps worth noting here that a cuneiform record from the fourth archeological period of Uruk (circa 3600 B.C.) is said to mention a dugong (Landsberger, 1934: 71).