There’s a Rat in my Soup

One of the more difficult tasks facing historians of ancient Mesopotamia is the identification and classification of names found in cuneiform sources of animals and plants. It has been often a matter of either personal preference or unavoidable circumstances which has determined the spotty nature of work done in this endeavor. On a broad level, the names of Benno Landsberger and the participants of the project Materials for the Sumerian Lexicon (MSL) of the University of Chicago first spring to mind as proponents of an encompassing treatment of ancient fauna and flora. Landsberger’s scheme in the case of animals was, isolation of Akkadian word candidates and if possible their Semitic cognates from cuneiform and modern written sources on the one hand, on the other the compilation of candidate creatures, culled from depictions in Babylonian art, from osteo-archaeological reports and from zoological and technical studies of animals native to the heartland and regions peripheral to ancient Mesopotamia. The successful striking of obvious word/animal pairs from the two resulting lists leads in this process to an ever smaller number of unidentified words/objects which were then subject to speculative identifications. This considered method resulted in quite appealing publications which had an immediate and lasting impact on Assyriology, beginning with Landsberger’s famous Fauna; the zoological identifications of wild animals in this

1 Available in the early 30’s were the studies of M. Hilzheimer, Die Wildrinder im alten Mesopotamien, Leipzig 1926 (MAOG 2/II); id., Säugetierkunde und Archäologie, Zeitschrift für Säugetierkunde 1 [1926] 140–169; id., RIV 14, Berlin 1929, 190-200. See now E. van Buren, The Fauna of Ancient Mesopotamia as Represented in Art, Rome 1939 (AnOr. 18); M. Behm-Blancke, Das Tierbild in der altmesopotamischen Rundplastik, Mainz 1979 (Baghdader Forschungen 1).

2 B. Landsberger, Die Fauna des alten Mesopotamien nach der 14. Tafel der Serie HAR-ra = hubullu, Leipzig 1934 (Abhandlungen der philologisch-historischen Klasse der Sächsischen Akademie der Wissenschaften 42/6). This edition was in no small fashion a product of the Leipziger Schule and Landsberger’s apparent early decision to order the great mass of Babylonian lexical material, above all through the assistance of his students; cf. L. Matouš, Die lexikalischen Tafelserien der Babylonier und Assyrer in den Berliner Museen (LTBA) I: Gegenstandslisten (Serie HAR-ra = hubullu), Berlin 1933, and W von Soden, Die lexikali-
volume found in the Babylonian lexical list HAR.ra = ḫubullu 14 quickly spread to secondary literature and into the German and the American Akkadian dictionary projects. However, Landsberger moved through an immense amount of material in his academic career, so that his attention to philological detail in this and subsequent publications was not that found in the work of somewhat less productive scholars.

This snarl is of course known to those who have dealt with Landsberger’s lexicographical work and is thus not of great interest. In judging the reliability

schen Tafelserien der Babylonier und Assyrier in den Berliner Museen II: Die akkadischen Synonymenlisten, Berlin 1933. The most succinct statement of Landsberger’s approach to faunal identifications is found in Fauna pp. 45f. (to snakes), 71f. (mammals) and in his introduction to the list ḫḥ 18 in MSL 8/2, pp. 79–94, in particular pp. 84–88 on the possibilities of equating modern Iraqi fish species with ancient designations, an endeavor which he in fact confronts with some skepticism: “One of the major problems is the disparity between Linnaean nomenclature and that of the market place, ancient and modern” (p. 79).

Well-founded identifications thus required a broader base: “the philologist’s identifications should be made only after close cooperation with an ichthyologist, and with an expert on primitive technology.” One consequence of this approach was that Landsberger in his preparation of Fauna sought and successfully exploited the expertise of the zoologist I. Krumbiegel, an interdisciplinary method of philological research which in recent years has been most forcefully propagated by K. Butz and B. Hruška, on an organizational level by the participants of the Sumerian Agriculture Group headed by M. Powell and J. N. Postgate.


4 E. Ebeling in the DLZ, 12. 4. 1936, col. 613ff., first leveled harsh general criticism against the less than precise reconstructions of lexical lists offered by Landsberger in Fauna, following up in MAOG X/2, Leipzig 1937 35–75 (sic!), with detailed corrections of the manuscript, which, as an aside, had been submitted by Landsberger early in August 1933 and which went to press the end of June 1934, so that the increasing pressure in late 1934 in the administration and faculty of the University of Leipzig to drive the Jewish scholar out, resulting in Landsberger’s expulsion in April of 1935, will not have played a role in his cursory treatment of the lexical scores. Moreover, as Ebeling demonstrated, the blame could only be borne in part my Matous, since Landsberger states himself that his transliterations of the VAT texts published in LTBA I were made based on photos and collations of the originals, the manuscript of Fauna having been composed before the appearance of the text copies. Some years ago, I had occasion to reconstruct the partitur version of the volume MSL 8/2, that is, the presumably revised version of Fauna utilizing both LTBA I, the collations and corrections published in the cited review by Ebeling, and collations of VAT texts performed by F. Köcher; this reconstruction resulted in corrections filling some 15 typed pages.
of the work of Landsberger and of the project MSL initiated and for many years led by him, it is, however, important to consider two factors complicating the identification of animals in cuneiform sources. First, the lexical lists were compiled by scribes who were officials of central authorities in urban centers. In describing and categorizing objects, these officials were entirely dependent on their own perceptions and on those of people surrounding them. It is not surprising that animals were consequently classified from the viewpoint of the scribe who was at once urban consumer and vain and occasionally fantastic pedant.\(^5\) The consumer knew shoulder butts or salted fish meal and included designations of these objects in his lists of pigs and fish. He did not know what a dugong was,\(^6\) nor did he have any rationale to doubt the mythical tradition in which he lived, with its world of dragons and monsters. Second, there is good reason to believe that referents of written and spoken object designations changed through time. On the semiotic level, this lexical development would seem to apply to the use of the proto-cuneiform script by Sumerians entering the alluvium at the inception of the Early Dynastic period, of particular relevance to faunal studies, the probable semantic shifts which seem to have occurred following the Ur III period will have had wide-reaching effects on compilations and translations of Sumerian vocabularies prepared in the Old Babylonian period and thereafter, from which Assyriology derives its translations of most Akkadian and Sumerian animal names. The often noted need for particular skepticism regarding our understanding of Sumerian phonology and lexicon based on an Akkadian itself revived through comparison with extant Semitic languages is made the more urgent by the awareness that elements of spoken languages change through time and that although these elements tend to freeze with the death of a particular language, a non-vigorous recording of a dead language – Sumerian in the first centuries of the 2nd millennium – leaves open to debate the validity of many of the lexical identifications redacted in this period.

\(^5\) The large number of fabulous creatures in Hb 14 attests to the fact that literary and folkloristic imagination played no small role in its compilation. Indeed, the first section of the list comprises nearly 50 entries dealing with snakes and dragons, of which the majority were mythical beasts.

\(^6\) The fanciful postulation in Fauna, p. 71, and MSL 8/2, p. 91, fn. 31, that this animal was represented by the proto-cuneiform sign ATU 1, 92, is at the same time a warning that script-archaeology can lead to entirely unfounded identifications which flourish in secondary literature (among others, for example in the otherwise masterful essay “Seckühle (Sirenia)” by B. Brentjes, Zeitschrift für Säugetierkunde 32 [1967] 115-118). The sign combination \(\text{ab k u}_6\), “cow-fish” attested in the Early Dynastic fish list (cf. R. Englund and H. Nissen, ATU 3, 94, and G. Pettinato, MEE 3, 98, to line 18) may, however, point in the right direction, since a preserved cut from such an animal may have been described by the fishermen or traders as having been taken from a large swimming cow. Thus also the Arabic \(\text{baqar al-mā}^3\) “water cow” in Arabian geographies, cited in E. Baer, BSOAS 31 [1968] 23.
As a faithful admirer of the scholar celebrated in this volume, whose acute and lucid work has gone far in establishing the identification of and the role played by above all large animals in ancient Mesopotamia, I wish to offer a note on a group of less assuming creatures, the rodents, cuneiform references to which first aroused my interest when, during the tiresome process of compiling my own score of the late Akkadian list ḫḫ 14, I was intrigued by the detailed knowledge of these animals scribes exhibited both in lexical and in literary compilations. As J. Boessneck, whose enthusiasm for small mammals was striking, and who constantly dispensed much more warmth and insight than could be repaid, once told me, “Man soll auf das kleine Getier hören. es erzählt uns von Halbgöttern, die sich viel anmaßen!”

One might imagine that the extent of ancient scholarly interest in rodents would be limited to the damage done by such animals to crops and stored foodstuffs. This is a categorization indeed obvious in the treatment of insects in a later section in ḫḫ 14, which, seen primarily as pests and parasites, are schematically qualified ‘pest,’ ‘pest of the head,’ ‘pest of the field,’ etc. However, the designation and characterizations of rodents in the section 11. 184–206 suggest a somewhat more observant categorization of this group of animals, with attention paid to the size of the animals, to their natural habitat and to the color of their pelts, even to their gait. For purposes of reference, this section is offered here with provisional translations of the Sumerian and Akkadian designations.

7 Since Landsberger’s treatment in Fauna, pp. 125–136, of the insects listed in ḫḫ 14, ll. 249–359, essentially no further research has been done on textual references to this group of fauna in Mesopotamia, which if less well attested in administrative sources than exploited animals certainly aroused great and long-lasting interest in the popular literary genres of omina and incantations, and which are found already in the lexical tradition of the Fara period (cf. the text TSŞ 46 [plate 183] viii 18–20 and see MEE 3, p. 68, ll. 115–119; a similar text from Abu Salabikh is OIP 99, no. 28).

8 See Fauna, 1051–113, with Landsberger’s commentary to this section, which perhaps due to graphic association of the signs 𒐰 and ᵐeğin follows the section on pigs.

9 This sign appears to have developed from LAK 244 and 247 (cf. M. Krebernik, Die Beschworungen aus Fara und Ebla, Hildesheim 1984, 287–290; to p. 289, A1 cf. OIP 58, p. 291 7 to B3 s. TSŞ 629 iii 5.”Nin.LAK 247” to B5 add Suppl. 12: [1 A]mar ī “Nin.LAK 247), with the form LAK 245 in pre-Sargonic Lagash and Ur III. Two readings have generally been ascribed to the sign when used in connection with rodents, ᵗši and ᵃš. Whereas Proto-Ea offers only the reading ᵃš-eš = PES of the sign (line 583, s. MSL 14, 55), this reading is confirmed in Ea i 203 only for the Akkadian equivalent ᵃšu-nu-nu-ii-ru-mu “ma-az-zi-ru” the Akkadian term ᵇši, on the other hand, is equated in the following entry with the same sign with a reading ki-ši(-ib) (cf. MSL 14, 187). Unfortunately, the gloss ki-ši of the sign PES in line 187 below is of no help, since the corresponding Akkadian equivalent is
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186. "Nin kilin m(PES)[ ]
187. kiš ši-si [ ]-u
188. p[es] ĥum-ši-ru[ha-m[e]-ši-r[u]
189. pēš tur pe-ru-[a]-i-im
190. pēš giš gi
190a. pēš giš gi a bur-ru-mu
191. pēš MIN i g[u, e] iš-ka-ri-š[u]
192. pēš še giš[ i gu, e] kur-sis-su]
193. pēš giš ur ra ar-ra-bu
194. pēš aša ga ĥa-ri-ru
195. pēš igi gün gün( nu) bar-mu
196. pēš nig giš lim ma āš-ša[i]-ki-s[u]
197. pēš siša gaz ten
197a. pēš ki-šul MIN
197b. pēš ki-bal ak-[ba-ru]
198. [p]ēš tum tum me as-[qu-tu]
199. [t]um tum me MIN
199a. [tum tum] me ša-i-ga-[ri’]
200. "Nin kilin/m šik/iš-[i-ik]-k[i]-u"

lost. The readings pēš = ĥumši and kiš(u)s = pi ašu are, moreover, confirmed in the late Akkadian list Syllabary B, ll. 166-167 (pē-eš es ši-si = PES = ĥum-ši-ru ki-it = PES = pi-a-ša, s. MSL 3, 111). For a general reading pēš of the sign in semantic combinations speaks a lexical text from Susa edited by M. Lambert in Journal Asiatique 263 [1975] 39ff., no. 1, 2: PES siša gada = pi-aš-la-ak-da = ša-la-ak-da-mu-mu. As M. Civil stated in RA 70 [1976] 94, the Susan scribe will not have known the Akkadian equivalent hulū of the Sumerian sign combination PES siša gada, inventing instead a (phonetically corrupted) loan (paš) šalak-danum (-num often used in animal names). The element paš derived from the phonetic realization of the sign PES. The entry 394: pēš la gada of the Practical Vocabulary of Assur (see below, fn. 14) may also derive from /pēš-(si) la-gada with an assimilation of the sibilant of the second element, assuming it is not to be read šika. It may be mentioned in passing that D. Frayne considers the word pēš to have derived from proto-Indo-European *mēs (cf. CSMS Bulletin 25 [May 1993] 33).

10 For the reading of this name see the preceding footnote, the forerunner version of ḫḫ 11, l. 53, cited below, and cf. PVA 394 pēš la gada = hū-ru-n (AFO 18, 332).

11 Five lines follow with further qualifications of this animal. Cf. M. Krebernik, Die Beschwörungen aus Fara und Ebla, 287–297 with reasons pp. 260–262 against an equating of the designations "Ninkilin/m and "Ningirima."
The in some cases reconstructed entries of Ḥḫ 14 are secure due to the appearance of corresponding sign combinations in other late Akkadian lexical lists, in particular the list Ḥḫ 11 dealing with leather goods and animal hides and pelts but also in the series uru an na, šarru = malku and ḤAR. gud12, and due to glossing of attestations in later Akkadian literary and royal inscriptions. For example, the animal designated pēš gis = ū-šū-mu, “reed thicket rodent” in line 190 of the list is attested in Ḥḫ 11, l. 59 as ṣuš pēš gis = MIN (mašak) ū-šum-mu, “pelt of the reed thicket rodent” 13. The so-called Practical Vocabulary of Assur14 carries a parallel equation in line 393· pēš gis = ū-[š]u-um-mu, and the final line of the 4th tablet of the series sīg aššānu = nabnītu15 contains the entry pēš gis = ū-šum|šūm-mu|ma. One witness of this entry16 derives from the Middle Assyrian period and so demonstrates a lexical tradition reaching at least into the end of the 2nd millennium.

The canonized tradition of the series ḤAR. ra = ḫubûllû in fact derives from the Old Babylonian period, during which lexical sources from the 3rd millennium dealing with realia were entirely rewritten. Although the “fore-runner” witnesses of the list Ḥḫ 14 have never been edited,17 it is possible to order the few available Old Babylonian sources into a score version using primarily the late Akkadian series Ḥḫ 14 and Ḥḫ 11 and the forerunner of Ḥḫ 11 edited in MSL 7, 209–228. The section covering rodents has the following form18:

12 See MSL 8/2, pp. 44–75.
13 With text A = 1.TBA I, 33 i 34’
16 VAT 9716, for which cf. B. Meissner, MAOG 11/1-11, Leipzig 1937 94–98.
17 This forerunner text was presumably slated for publication together with a revised commentary to the full list in the volume MSL 8/3 announced by Landsberger in MSL 8/2, p. ix. The manuscript was apparently never written.
18 Including SL T 37 (+ 2SL T 46 + N 5491, s. MSL 8/1, 82 V42, MSL 9, 41), 38 (s. V15 of Ḥḫ 15, MSL 9, 41), 45, 51 (s. Ch.-F. Jean, Babylonica 13 [1933] 59f.; MSL 8/1, 82 V29), 52 (s. MSL 8/1, 82 V45), 56 (s. MSL 8/1, 82 V9), 57 (s. MSL 8/1, 82 V19), C. Frank, Straβburger Keilschrifttexte in sumerischer und babylonischer Sprache, Berlin - Leipzig 1928, 19 (= D. Charpin and J.-M. Durand, Documents cunéiformes de Strasbourg, Paris 1981, 151), TIM 10, 17 and 105, VAT 6491, CBS 4815, 6464, 13309; cf. Fauna, pp. 49f., 73.
OB Forerunner of rodent section of Ḥḫ 14
(A = SLT 51, B = SLT 38)

| A obv iv 1 |     | pēš | 46. kuš pēš turr |
| B rev iv 1 |     | pēš |

| A obv iv 2 | [pēš] gis gisgi |
| B rev iv 2' | [pēš] gis gi |

| A obv iv 3 | [pēš] gi gu-a |
| B rev iv 3' | pēš gi e'gu-7 |

| A obv iv 4 | [pēš gis] 'ūr' |
| B rev iv 4 | [pēš a šā ga] kuš pēš a šā ga |

| A obv iv 5 |     | gu-n' |
| B rev iv 5' | [pēš] igi gu'n |

| B rev iv 6' | pēš gil lim ma' | 51. kuš pēš nîg gilim [ma] |
|             |               |

| 52. kuš pēš nîg gilim [ma] |

| 53. kuš pēš ('dug' šila gaz gaz za zi ga)
| 54. kuš d Nin kilin m |

Precursors to this lexical tradition from the third millennium are found not in Babylonia but rather in Syrian Ebla. The reading *pî eš of the sign LAK 244 in the Ebla texts is shown in a lexical text published by A. Arachi. 22

19 See MSL 7 209-212, for the text witnesses of this forerunner list of Ḥḫ 11 (and add: K. Watanabe, in: ASJ 9 [1987] 277-291; MsK 74247 + 731054 + Tokyo fragment and MsK 74148a = texts D+ [Sumerian] and G [bilingual] of D. Arnaud, Emar VI/4 [Paris 1987] pp. 89-104, no. 548 [the joins to D+ were noted in M. Civil, AuOr. 7 [1989] 16]), which comprises designations of leather objects; the abbreviated section on animal skins and pelts ends with our list of rodent pelts (p. 215), the use of which outside of cultic practice is unknown to me.

20 The texts Watanabe and Arnaud D+ (see preceding fn.) have kuš pēš gis gisgi Arnaud G has kuš min (= pēš) gis ga a, the latter possibly a haplographical reduction from gi gu-. A. The three texts also continue with the entry kuš pēš min gisūr ra in line 49, followed by kuš pēš a šā ga.

21 The section of the text witnesses Watanabe and Arnaud D+ (s. fn. 19 above) dealing with the mongoose Nin kilin n (Akkadian šikkū) adds four designations of this animal; see above, fn. 11.

22 The “Sign-list” from Ebla, Eblaitica 1 [1987] 97 l. 86 (= TM.75.G.1385 rev iii 2 and TM.75.G.1907 + 12680 rev ii 19f.): pēš = b[i]-šum, line after anše and before pî rîg.
In the section of the bilingual Vocabulario di Ebla listing wild animals are two entries dealing with the sign LAK 244 = pēš, of which the second n EP Eś\textsuperscript{23} clearly corresponds with the Semitic equivalents a\textit{a}\textit{r}-\textit{ra-bū†(um)} to later \textit{arrabu}, the "roof" rodent pēš gis\textit{ū}r ra. Two other bilingual texts contain further attestations of pēš in combination with the sign n in equivalent to n\textit{ig}) and apparent phonetic complements, including n EP Eś-ha-lum = ha-ma-ši-lum (hama\textit{lamšīnu}, ar. ha\textit{n})gīr, ‘pig’) and n EP Eś = ba-ra-tum (permūtum, ar. fa\textit{r}).\textsuperscript{24} A number of seemingly indigenous names of rodents is also found in an Ebla list, including ha-ma-ši-ru\textsubscript{2}um and šu-mu-um.\textsuperscript{25}

In nearly all of the entries of HAR.\textit{ra} = hūbullu cited above, the Akkadian designation of the animals can be found in an imposingly large number of reference texts covering the whole spectrum of Babylonian literature. For instance, the creature called \textit{kur}(\textit{n})\textit{sissu} in first millennium sources, a rodent which attacked fields and stores of the oil-producing plant še gīš\textit{i}, first appeared in this role in published cuneiform sources in an astrological text from Kuyunjik,\textsuperscript{26} then in a namburbi incantation from Assur;\textsuperscript{27} further, \textit{kursissu} are qualified in the so-called expanded version of the \textit{tašritu} menology as vermin which will befall a field of še gīš\textit{i} should it be irrigated on the 3rd or 5th day of that month.\textsuperscript{28} Finally, an Old Babylonian collection of extispicy omina warns that with the appearance of a pierced processus papillaris of an

\textsuperscript{21} MEE 4, pp. 298, 872f.

\textsuperscript{22} TM.75.G.10018 and 11303 = texts 96 and 112, respectively, of MEE 4; cf. there p. 368, ll. 0.297–0.301 see also MEE 3, p. 67.1.

\textsuperscript{23} MEE 4, pp. 385f., no. 116 (photo pl. 32), ii 5f. For the Ebla connection to H\textit{H} see the article by M. Civil cited above in fn. 3.

\textsuperscript{24} R. Campbell Thompson, RMA I, London 1900, pl. 7 no. 28 (BM 80–7–19,59), 3–5: DIŠ 30 \textit{ina} IG.1.\textit{A}-ši U, ZA\textit{LAG} c-di-[\textit{isk}′ ]/\textit{ku-ru-sis-su} ZI-ma \textit{ŠE.GIŠ.I GU}., "Entry: the moon is at its appearance covered with a shimmering light " , k. will rise up and devour the še gīš\textit{i}.” Campbell Thompson, RMA II, p. xxxvii, translated k. "perhaps a worm or insect."

\textsuperscript{25} E. Ebeling, KAR 257 6': [ \textit{ina} HU\textit{L} iš-ka]-ri-is-si ku-ru-sis-si iš-qip-pu ḫu-l\textit{a} [me-šu], “against the evil of the \textit{i}. and the \textit{k}.-rodents, the \textit{i}.-worm, the \textit{ḫ}.”

inspected liver state officials would plunder the palace and the *kursissu*, would devour the še gīši of the land.29

These text references in fact tell us little about the animal *kursissu* beyond the fact that it represented a threat to the crop še gīši. Insofar as no rodent is recognized as singularly threatening to the seeds of this oil-producing plant, it is not possible to reduce the number of animals which might be considered, all field mice, to one or two candidates for a translation of the term. The situation is different in the case of line 190 of the list Hh 14. The animal entered there, pēš gīši = ū-šu-mu, “reed thicket rodent”, 30 is sufficiently attested in various contexts in both Akkadian and Sumerian sources as to allow of an identification which, if not beyond doubt, certainly fulfills minimal expectations. The *ūšummu*, also written *šummu* in later texts, is, first, found in lexical texts beginning in the Old Sumerian period in Ebla and reaching through the Old Babylonian and Middle Assyrian into the neo-Assyrian and neo-Babylonian canonized forms. The Akkadian term is without exception equated with the Sumerian pēš gīši. Second, the animal is widely attested as a desirable repast of gods, of kings and of normal men, in Sumerian texts dating to the Ur III Dynasty at the end of the 3rd millennium, in Akkadian texts dating to the Old Babylonian and the neo-Babylonian period.31 The blood of the animal was used in cultic practice.32 Third, this animal is according to textual references a burrower, as we might expect, moreover may be found above all along the banks of canals, whence it probably derived its Sumerian name, and where its burrowing activities would have represented a threat to the dikes. Next to this philological evidence may be set with some reserve the osteo-archaeological evidence of remains of rodentia unearthed in Mesopotamian excavations, and, finally, eating practices in the Orient which are current or from recent periods may be cited, all of which taken together suggest that the *ūšummu* was the bandicoot rat.

Cuneiform texts published toward the end of the 19th century already attested to the fact that *ūšummu* belong on the dining table of the Chaldean

29 YOS 10, 35, YBC 8648, 29 = J. Nougayrol, RA 38 [1941] 88, AO 7033, rev 3f.: MĀŠ pa-al-la-at ŠÄ TAM(E,NE) É.GAL-lam i-ma-la-lu i-ka-ri-u šE.GIS.î ma-tim i-ka-al/lu

30 Following the Sumerian. The etymology of the Akkadian word is not known (according to GAG, p. 63, §55 a *paras* form of a verb primae infinivae). Cf. the overview of the literature to pēš gīš in M. Civil, AuOr. 5 [1987] 23f., and see W. Heimpel, RIA 7 p. 607

31 Four other rodents were also served in Babylonia, the ‘field mouse’ harriru (pēš aša), the ‘roof’ rodent arrabu (pēš eš ṣīr ra), the ‘jumper’ rodent akbaru (pēš ki bal) and the ‘speckle-faced’ rodent bargu (pēš i gi gûn); see W. Heimpel, loc. cit., and below, fnn. 44 and 49.

32 R. Caplice, Or. 39 [1970] 118, BM 82–3-23,1 14: ÚŠ UZ.TUR *ūšu* ÚŠ PĒŠ. gī ŠT G 1 *hal-śa S.I.A->a ina UGU [G1.DU*š*], MES GAR-an, “(Nine jars) you fill with (beer, wine, ...) blood of a duck, blood of a ‘reed thicket’ rodent and pressed oil, and you place them on the reed altars”
gods and kings. Nebuchadrezzar boasts in an oft copied inscription that he "daily heaped up on Nabû's offering table [fattened oxen, various small cattle, geese, ...] a string of fish, birds, ušummu, eggs — produce of the marshlands —."


A similar list of offerings made by Nebuchadrezzar was published in CT 46, 45 (BM 45690; edited by W. Lambert, Iraq 27 [1965] 1–11, s. p. 7):

and cp. Lie, Sg. 78 (text A = Winckler Sg. no. 51, B = 76f. [so-called 'Pruinkischrift']):

34 F. Thureau-Dangin, Rituels akkadiens, Paris 1921, pp. 62–65 and 74–86 to AO 6451; s. pp. 78f., ll. rev. 16' 28: (a)ušummu (written PES. ə̂ GI) together with UDU, UZ.TUR ə̂ GI, and UZ.TUR ə̂ SES, UZ.TUR ə̂ SES, and NUNUZ. Note to the references given in HKI 1 to this text that the incorrect copy P. Botta, Monument de Ninive IV Paris 1846 1850, 105, was worsened by Lie's PES. ə̂ GI. Further attestations of the variant ūsummu for ušummu cited below prove that the form found here is not to be explained as a sandhi orthography with preceding paspasū.
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draconian punishment threatened for the case that yearly delivery quotas were not met, offer further proof of the importance of the rodent delicacy in cultic practice and, necessarily, on the tables of the priesthood.35

The edition by E. Ebeling in 1942 of an Old Babylonian letter from Larsa,36 in which the sender communicates his great enthusiasm for the nūummū from a neighboring town he had recently tasted, demonstrated that this animal was also highly prized in the Old Babylonian period. The apparent businessman Šamaš-nāṣir writes.

5. is-tu ura Tu-ur-[d]U-gul-lā [k]
7. u-šu-um-mi Tu-um-ma-gir
rū-še-bi-la-am-ma
6 a-na dUTU-la-ma-sā-šu za-mar-da-bi-im
uš-ta-bi-il

Tutu-māgir sent me
7 n.
from Tur-Ugalla
6 I sent on
to Šamaš-lamassasu, the
‘zabardab’ official).

Just one I kept
to eat myself,
and it tasted excellent!
Had I known how good
they were,
I’d not have sent a single one
to Šamaš-lamassasu!

Now, as to why I’m writing:
When you go down to
Tur-Ugalla, tell the orchardist
who lives there
he should dig up 15 n.
for me and send them here.

35 A. Bongenaar – M. Jursa, Ein babylonischer Mäusefänger, WZKM 83 [1993] 31–38. The text contains the record of an apprenticeship of an apparently young man contracted to the office of the royal nūummū hunter (ba-šš-ir šu-um-me-e ša LUGAL). This man was to deliver 50 n.-rodents yearly to (the temple E-babbar of the sun god) Šamaš as the work quota of his young charge, with a penalty clause requiring payment of 1000 n. should he not meet this quota.
36 See his edition of the text TCI 17 Paris 1933, 13 (AO 6323), in MAOG 15/1–II, 15.
37 M. Stol has argued in BiOr. 31 [1974] 222–223 that the use of the S-stem of the verb elū, “to cause to rise” “to bring up” should be understood metaphorically for “to find” “to provide quickly” and is thus not proof that the nūummū were burrowers; Stol admits, however, that the situation in TCI 17, 13, is ambiguous. The letter cited in the following note, the Sumerian proverb 6.43 = 11.26 (see below, fn.51), and the evidence supporting an identification of the animal with the bandicoot rat, appear to lend more credence here to the traditional translation “dig up”
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A damaged text from Old Babylonian Ur seems to attest to similar instructions, and a recently published letter from the Mari archives demonstrates that the 'reed thicket' rodents were also in circulation in Syria at this time.

10' [uš-ta-bi-la-kum] [uš-ta-bi-la-kum]

[The u. (?)] which I couldn't send you with your messengers.

11' [i-na ša]-at-tim an-ni-tim ušum-mu

this year the u. are very expensive.39

The Babylonian tradition of consuming ušumu is also rather well attested in the neo-Sumerian period of the end of the 3rd millennium. Nine accounts demonstrate that the rodent formed part of regular offerings made to ranking gods of the Sumerian pantheon as well as part of festive meals of the Ur III kings. In the first, a measure of honey and numbers of animals are listed followed by their respective silver equivalent values and together qualified as nēṣag den En 1il la, "n.-offering of Enlil" in Nippur. The lines rev 1 f. read.

9 pēš gi

kūbīgi 6 gāl 4 śe

9 'reed thicket' rodents, the silver equivalent: 1/6 (shekel), 4 grains.41

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38 UET 5 (1953) 69, ll. 8'-13': um-ma šu-um-ū-um | iš-um-ma ul-li-a[m] | uš ši-le-qē an-ni-a-am ni-le-qē šum-ma i-na ki-tim a-hu-ši at-ta. .. "they said: 'bring up the ušumu and take ..! We'll take them. If you are really our brother.' The correspondence between Sumu-Dagan and his father in the Old Babylonian text CT 29 (1910) 20, BM 97031 (= A. Ungnad, VAB 6, Leipzig 1914, no. 137; AbB 2, Leyden 1966, 151), shows that the field rodent ḫarriru was equally prized at the time: a-šar PES.A.SĀ.GA i-ba-āš-šu-ši 1 šu-ši PES.A.SĀ.GA a-bi ši-ma-am mar-šu-ši li-id-di-in-ma 1 šu-ši PES.A.SĀ.GA a-bi li-ša-bi-lam-ma (ll. 10-15), "Wherever you find the field rodents, pay any price and send me 60 of them!" (Sumu-Dagan, disappointed by his father's inaction, reminded him of his request in a letter written the following year; cf. CT 33, 24, BM 97115 [= VAB 6. no. 138; AbB 2, 179]).

39 J.-M. Durand, Archives épistolaires de Mari 1/1, Paris 1988 (ARM 26), pp. 215f., no. 75. The author states p. 216, n. c), that "il s'agit manifestement d'un commerce de peaux." This may be a judgment derived not from this text but rather from other Mari letters mentioning the ušumu, of which there are said to be several. Babylonian evidence points, however, to the consumption of the animal's meat. The text cited in the following fn. demonstrates that the animals themselves, and not merely their pelts, were probably exchanged in Ur III Nippur.

40 H. Sauren, MVN 2, Rome 1974, 24, dated to Shulgi 39 and sealed by the scribe Lugal ēzen.

41 The uneven equivalence of 3½ grains of silver per animal, or about 47½ animals per shekel, suggests, first, the 'price' was determined in an ad hoc fashion, and second that the animals were not excessively expensive, although, by means of comparison, some 10 kg of the high protein smoked fish kūša šēš dealt with in some detail in delivery accounts and trade agent ledgers from the provinces of Umma and Girsu could be had for the same silver equivalent as that set for one pēš gi rodent; cf. R. Englund, BBVO 10, Berlin 1990, pp. 182-192.
Similarly, a second text from Umma dated to the 5th year of Amar-Suen registers various amounts of different types of dried fruits, dairy products, fish, and

\[
\begin{align*}
\frac{1}{3} \text{šáh} \overset{gî}{\text{gi}} & \quad \frac{1}{3} \text{boar ("reed thicket" pig)}, \\
3\frac{1}{2} \text{pēš} \overset{gî}{\text{gi}} & \quad 3\frac{1}{2} \text{"reed thicket" rodents}, \\
\frac{5}{6} \overset{\mu}{\text{ugá}} \overset{\text{m}û\text{su}}{\text{mu}} & \quad \frac{5}{6} \text{raven}, \\
\text{nidba} \overset{\text{d}}{\text{Elil lá}} & \quad \text{nidba-offering of Enlil.} \quad \text{\textsuperscript{42}}
\end{align*}
\]

A third account from Umma registers

\[
\begin{align*}
2\frac{1}{2} \overset{gî}{\text{gi}} & \overset{\text{pēš}}{i} & \overset{\text{KWU 858'}}{30} & \overset{\text{KWU 858}}{\text{sumāš ku}_6} & \overset{\text{KWU 858'}}{30} & \overset{\text{sag kēš}}{115} & \overset{\text{75 fish bundles}, }{\text{etc.}} & \overset{\text{KWU 858'}}{\text{KWU 858}} \\
\text{nidba} \overset{\text{d}}{\text{Suen}} & \quad \text{nidba-offering of Suen.} \quad \text{\textsuperscript{43}}
\end{align*}
\]

Two parallel texts from Ur qualify a "reed thicket" rodent bound for the table of the king (Ibbi-Sin) as "grain-fed", "fattened" (sign ŠE = nīgā) and thus imply that these rodents were not only caught and eaten, but were also domesticated or at least held, probably in pens in some way made impervious to gnawing, and fattened.\textsuperscript{44} This implicit statement is proven by two texts from Girsu. The first account\textsuperscript{45} records the daily feeding schedules of a number of farm animals known to have been kept in the stockyards of temple households to be fattened for offerings. Following standard Sumerian accounting practice of beginning with the largest amounts, the text lists measures of \(1\frac{1}{2}\) and \(1\ \text{sila}\) of grain fed each day to sheep and goats, then listing large

\textsuperscript{42} Y. Nakahara, The Sumerian Tablets in the Imperial University of Kyoto, Kyoto 1928, no. 19, ll. rev 3–7. The point of recording fractions of these animals, particularly of rodents and birds, is not obvious (\(2\frac{1}{2}\) rodents are also booked in AnOr. 1, 190, 13\(\frac{1}{3}\) in MVN 16, 739; see the following fn.); certainly the seemingly exaggerated exactness of many of the Ur III accounts, for example, the inclusion of fractions of grains (\(\frac{1}{180}\)th shekel) of silver in trade agent accounts or of \(\frac{1}{180}\)th and even \(\frac{1}{360}\)th workday in labor accounts (cf. R. Englund, JESHO 31 [1988] 173–176) make a possibly artificial division of sacrificial offerings imaginable.

\textsuperscript{43} AnOr. 1, Rome 1931, 190, obv ii 21–28; compare similarly MVN 16, Rome 1994, 739 rev 18.

\textsuperscript{44} UET 3, London 1937 102 obv 5 and 141 obv 6. The \(nīnimmu\) is followed in both accounts by an entry recording one \(pēš\overset{\text{gīgūn}}{\text{nīgā}},\) a fattened, speckle-faced \(barmu\) rodent also known from texts of this period; cf. fn. 49 below. A third text, AnOr. 1, 242, l. 12, registers similar foodstuffs provided for the temple of Amar-Suen in Umma; these are doubtless sacrificial offerings for the cult of the dead king.

\textsuperscript{45} ITT 3, 6415; since the account lacks a colophon, it may have been either incomplete or a school exercise.
birds with between \(\frac{2}{3}\) and \(\frac{1}{3}\) sīla each, smaller birds with less, and ending with an entry of 17 pēš, each being fed \(\frac{1}{15}\) sīla 4 shekels, approximately 40 grams\(^{46}\) of grain per day. These can only have been the same rodents qualified pēš ĝi ĝi in the second text, which registers 129 of these animals being fattened at the time of the account.\(^{47}\) 40 grams of barley is an amount which an animal would have ingested daily with a live weight of three or four hundred grams or more, i.e., on the order of a guinea pig or a large rat.\(^{48}\) No such information is available concerning the size of other rodents which were eaten in Mesopotamia.\(^{49}\)

Three Sumerian literary passages offer some additional information about the appearance and habitat of the ‘reed thicket’ rodent. In the first, the moon god Suen includes among a long inventory of gifts he has brought to present to Enlil in Nippur

\[\text{pēš ĝi ĝi nīg kun su}_4 \text{ kun su}_4 \text{ da} \quad \text{reel thicket’ rodents with long tails, will I, Ashimbabbar/Nanna-Suen,}\]

\[\text{As ūm bāb bār( [dNa]nna}\]

\[\text{Suen me en} \quad \text{šā ūm mīnī īhīb gul gul} \quad \text{feed (him).}\(^{50}\)

46 Assuming the neo-Sumerian sīla held about 1 liter and based on the specific weight of 0.6 of barley. The source of W. Heimpel’s ‘10 grains’ (RA 7 607) is not obvious.


48 As with other fattening animals, it is difficult to judge in what fashion grain was supplemented by other feeds, i.e., grass, hay, scraps from the temple kitchen, etc. Rats fed entirely with grain consume about 50 grams a day.

49 The rodent called pēš ĝi ĝi ĝu īn, Akk. barmu (‘speckle-faced’) is mentioned in the context of meat exploitation in two Ur III period texts. The first (TCL 2, Paris 1911, 5528), an apparently incomplete account from Drehem of animals for offerings in a form parallel to those cited above, records rev. ii 4: 25 pēš ĝi ĝi ĝu īn. The second (B. Böck – R. Boehmer, Zwei neusumerische Tontafeln aus Uruk, BagM 23 [1992] 82–84, W 25046), a receipt from Uruk dated to Ibbi-Sin 3, confirms the delivery of 10 (?) such rodents. Two Old Babylonian letters mention numbers of the field mice pēš a.šā. ġa = Harrānu (‘burrower’) requested by the son of the addressee (s. fn. 38 above). A cultic proscription of the eating of the ‘roof’ rodent pēš ĝūr ra = arrābu on the 1st or 7th of the month tabrītu (R. Labat, Hémérologies et ménologies d’Assur, pp. 168–172, to KAR 177 rev. ii 14 and rev. iii 18 = KAR 147 obv. 8 and rev 8 = ND 5545 [P Hulin, Iraq 21, 45–53] obv 8 and rev. 7; in all three witnesses, the animal is written ār-ra-ba-ra-ab UR in the first line, PĒ.S.UR(0.RA) in the second) demonstrates that they too were eaten. Finally, Assyrian texts document festive and cultic meals including the jerboa (?) akbaru (pēš k i b a l), according to one of which (D. Wiseman, Iraq 14 [1952] 24–44, cf. p. 35, l. 114) Assursarsirpal had 10,000 such mice served up as one of many dishes to celebrate the completion of his palace at Nimrud.

50 Cf. A. Sjöberg, Der Mondgott Nanna-Suen in der sumerischen Überlieferung I, Uppsala 1960, 150: 24f., and A. Ferrara, Nanna-Suen’s Journey to Nippur, Rome 1973 (StPohl SM 2) 68: 275f. The translation assumes that šā-gal is a verbal correspondence to the substantive ša-gal, “food” “feed”
The Sumerian proverb 6.43 = 11.26 and 6.45 seem to refer to the same animal infesting reed thickets, with the admonition that filling the canals at the wrong time will attract rodents

6.43  a DU gi a
    nam mu nú dē en
    pēš gi a ke₄
    [i g u₇ gu₇ dē en

6.45  i₇ da a na an dé e en
    pēš bi am e₁₁ dē

Don’t lie down in the reed thicket, the ‘reed thicket’ rodents will eat you up!\(^{51}\)

Don’t pour water into the canal, its rodents will come out!\(^{52}\)

These texts offer the following information about this rodent:
1) Its natural habitat is presumably the reed thickets found along the courses of the Babylonian canal network and the southern swamps, also probably burrowing and living in underground nests.
2) Its primary interest to the Babylonians seems to have been its meat, particularly prized for festive meals, skin/pelt may have been of economic interest.
3) It was apparently domesticated and kept in herds in the Ur III period and fed or fattened with 40 g of barley per day; live weight thus perhaps ca. one pound.
4) It could have a long tail.

\(^{51}\) Only two of the witnesses to this and the following proverb are published: 6.43 = SLTN 147 obv 5, and SLT 189, obv 1–4, 6.45 = SLTN 147 obv 7 and SLT 189, obv 7f. The numbers cited follow the new edition of the proverbs by B. Alster, The Proverbs of Sumer (Leyden, forthcoming), to whom I am indebted for this information; the old reference number was 6.21 = 11.18 s. E. Gordon.: Festschrift Struve, Moscow 1962, 229. The first word, read by M. Civil, AuOr. 5, 23 a.ra and understood as “path,” has the variant "a" še in SLTN 147 and so is read by Alster a ša₄ (no translation offered). The element ke₄ of the second line is found in only one witness of 11.26, so that a referent burmānu of the Sumerian name cannot be excluded.

\(^{52}\) The number, following B. Alster, Proverbs (see the preceding fn.), was previously 6.23' for which cf. E. Gordon, op. cit. Compare M. Civil, JCS 32 [1980] 169 to 3N–T 232 + 244: pa₄ gi₅ kir₅ ke₄ a na.an túm/nig ki i gál “The ditch of the orchard should not carry water, there will be vermin!” and A. Cavigneaux and Farouk al-Rawi, Iraq 55 [1993] 100, Haddad 77 obv 6f: "pa sa₃' ka e na ab tu un nig KU a1 [gā al] pa-at AŠA me-e in-ul i-ma-ta-ar x [ ] i-ha-â-ši (the syllabically written Sumerian would correspond to pa₄ aš₄.g a a na.ab tûm nîg ki al.gâl). I do not understand the riddle edited by Civil, AuOr. 5, 23: [b]âra.g a ni nu šu ba mu ni nu pâ da/"dingîr₉
tam lu lu-gin, šu ba an kar re [k]ib ur bi pēš gi, translated by Civil “Its throne (platform; Civil: underground nest, in a place where it cannot be toppled?) does not fall down; its name is not invoked, it steals from god as well as from man. Answer: the canebrake mouse.”
Most commentators have followed B. Landsberger’s identification in Fauna 107 of the *ušummu* with a form of the common dormouse. These members of the family Myoxidae are small, arboreal animals who prefer to feed on fruit and nuts. None of these characteristics seem to fit with what we know about the *ušummu*. This rodent should be found in the reed thickets, most likely living underground in the dikes of canals and other dredged waterways, it should be larger than a black rat of normal size (100–200 grams), and, of course, it should be native to Mesopotamia, at least at the time of written records from the middle of the 3rd millennium.

Since there is no record of the existence of the black or the brown rat (*Rattus rattus* and *norvegicus*, respectively) in Mesopotamia, and the jerboa would scarcely be kept and fed in captivity, the most likely candidate which would fill at least most of these conditions is the bandicoot or mole rat (*Bandicota indica*) of the family Muridae, native to India and Sri Lanka. These burrowing rodents range from 1 to 3 pounds, with tails from 6 to 12 inches long. A related

53 German ‘Schläferart’ (‘Haselmaus’ ‘Siebenschläfer’ ‘Gartenschläfer’; English name presumably related to French dormier); cf., for example, K. Butz, BiOr. 34 [1977] 284, fn. 27; W von Soden, GAG § 55q s. *parus*, AHw 1443; this zoological identification was questioned by M. Civil, AuOr. 5, 24 (who, however, notes the weakness of the Romans for fattened dormice kept in special gliraria; see also E. Alfoldi-Rosenbaum, Das Kochbuch der Römer, Zürich 1970, p. 92).

54 There is some confusion about the rodents called by the Arabs *gerbū‘* or *gerbil* and *iarbū‘*. The desert jerboas (*iarbū‘*) *Jaculus jaculus* are the nocturnal rodents often mentioned in travel reports to be hopping in the Rover’s lights during night travel through the desert (bounding up to two feet vertically; cf., for example, D. Harrison, The Mammals of Arabia III, 415f.; R. Hatt, The Mammals of Iraq, 82; J. Kirmiz, Adaptation to Desert Environment. A Study on the jerboa, Rat and Man, London 1962). In the Gezira, the desert jerboa, which can reach a body length of 5 or 6 inches, are hunted – dug up – by boys in the months June through October and are eaten communally (L. Stein, Die Sammar-Gerba: Beduinen im Übergang vom Nomadismus zur Seßhaftigkeit, Berlin 1967, 83, 97). Their size, habitat and the apparent difficulty keeping them make these rodents unlikely candidates for our ‘reed thicket’ rodent, leaving aside consideration of the very meager osteo-archaeological evidence for their use by Babylonians. Since Fauna, 109, the jerboa has been equated with the *akbaru* = pēš ki bal. The gerbils *Gerbillus* sp. and *Tatera* sp. should be excluded for other reasons. Gerbillus cheesmani or dasyurus are smaller still than the desert jerboa and so unlikely to have been fed the amounts known from the Ur III documents; I am also aware of no report of their being eaten in modern times (cf. D. Harrison, Gerbils from Iraq, with a Description of a New Gerbil, Journal of Mammalogy 37 [1956] 417–442). Neither *Tatera* bailwardi, according to F. Bodenheimer, Animal and Man in Bible Lands, Leyden 1960, 110, the most common field mouse of central Iraq, nor *Tatera* indica, known as the antelope rat or Indian gerbil (skeletal remains of this latter rat have been found in Uruk and Jarmo, and in Persian Deh Luran, Farukhabad and Shahr-i Sokhta; the large nocturnal gerbil can reach 8 inches body length, but cannot be domesticated) are eaten.

55 Said to grunt like a pig, the rat’s name derives from the Dravidian Telugu pandi-koku (‘pig-rat’).
short-tailed bandicoot, *Nesokia indica*, is found throughout southwestern Asia and may have entered the Mesopotamian alluvium very early, having crossed or been brought over from its Indian origins during the 4th or 3rd millennium. The animal reported in some literature under the name *Nesokia* (indica) buxtoni, is a typical reed-eater widespread in the riverine plains of Iraq and Palestine today, its burrows “a frequent sight along banks of irrigation channels and amongst camel thorn shrubs near the water.” It is regarded as a particular delicacy by Iraqi Bedouin.

Unfortunately, rodent populations migrate very rapidly both overland and as the result of trade contacts, so the current presence of particular animals could indicate a native population as well as a recent arrival. Moreover, while the discoveries of skeletal remains of animals or other concrete indications from archaeological excavations have, in particular in more recent undertakings, resulted in the identification of a broad spectrum of ancient fauna in Mesopotamia, remains of burrowing rodents which can dig through strata representing hundreds and thousands of years are extremely difficult to date. A firm dating of such remains seems possible when, for example, the charred bones of rodents are found in or next to a hearth where they had been prepared for a meal or are found in a burnt level of a building. Another means of dating rodent bones is available with finds of such remains in owl pellets or dung balls of other animals, or even in the stomach of a predator. While these ideal conditions have not been met with bandicoot remains, the multiple finds of such rats in Near Eastern excavations, and some indications that not all will

56 D. Harrison, The Mammals of Arabia III, 497. R. Hatt, The Mammals of Iraq, 86f., states that the “earths of these rodents were common in cultivated areas near Baghdad and Basra.”


58 Such skeletal remains were also rarely gathered, since the necessary sieving or filtration which would catch small bones from excavations is usually considered too labor and, of course, water intensive. This failing skews the results of faunal analyses of excavation finds in favor of large mammals and birds. See, for example, S. Payne, Partial Recovery and Sample Bias: The Results of Some Sieving Experiments, in: E. Higgs (ed.), Papers in Economic Prehistory, Cambridge 1972, 49–64, and Payne’s remarks in A. Clason (ed.), Archazoological Studies, Amsterdam—Oxford 1975, 13. For an overview of the uses to which carefully excavated rodent finds can be put, see R. Redding, Rodents and the Archaeological Paleoenvironment: Considerations, Problems, and the Future, in: R. Meadow—M. Zeder (eds.), Approaches to Faunal Analysis in the Middle East, Cambridge 1978 (Peabody Museum Bulletin 2) 63–67.

59 J. Boessneck – A. von den Driesch, Ein Katzenskelett der Römerzeit aus Quseir (Kösér) am Roten Meer, Spixiana 6 [1983] 211–218 (in English in JAS 10 [1983] 205–211), report having identified the skeleton of a large male domestic Roman cat which, shortly before its death, “had eaten at least 6 rats (Rattus rattus), remains of which were found in the stomach and in dung balls.”
have been late intrusions, make at least plausible the existence of these animals in ancient times.

I was first made aware of this problem with the reported find of a lower jaw of one bandicoot among the tablets and other faunal remains excavated in the mound of Abū Salābīkh by the University of Chicago team working at Nippur; the age of this bone could not be determined.60 A similar report of bandicoot remains was made from the English excavations of Ur61 and from recent excavations of Uruk and Isin.62 While all of these finds may have been later intrusions – the bandicoot can burrow up to 6 meters – the aridity of the deserted tells, and finds of the very early occurrence of bandicoot rats elsewhere in the Near East support their early appearance in Mesopotamia.63

Cultural assessments may make the consumption of rodents seem no more appealing than that of insects or worms, westerners generally associate them

60 The finds were first analyzed at the Smithsonian Institution, Washington, cf. R. Biggs, JCS 20 [1966] 74, fn.11, and id., The Inscriptions from Tell Abū Salābīkh, Chicago 1974 (OIP 99) 19, fn.2. Subsequent study of the bones by A. von den Driesch in preparation of her publication of the fish bones in the collection confirmed the find of bandicoot, but could not determine whether the bones had been deposited already in antiquity (personal communication).
63 F. Hole – K. Flannery – J. Neely, Prehistory and Human Ecology of the Deh Luran Plain, Ann Arbor 1969 (Memoirs of the Museum of Anthropology of the University of Michigan 1), 319–321, mention two bandicoot mandibles from Ali Kosh which were found within the depth range of these animals, but which were both stained the same mahogany brown as the other faunal remains of the same levels and so seemed to be “redeposited specimens disturbed in ancient times, not modern intrusions” (recent intruders were recognized by “their pale white color, their articulated condition, and often by their accompanying seed catches”). See also D. Kock – I. Nader, Pygmy Shrew and Rodents from the Near East, Senkenbergiana Biologica 64 [1983] 18 (remains of sub-adult Nesokia indica myosura found in owl pellets from Qal’ar-Rahbah); L. Caloi – B. Compagnoni, I Mammiferi, in: G. Tucci (ed.), La citta’ bruciata del deserto salato, Venice 1977 188–190 (report on rodent finds from Shahr-i Sokhta, Iran, ca. 3200–1800 B.C.; English translation p.206); H. Wright (ed.), An Early Town on the Deh Luran Plain. Excavations of Tepe Farukhabad, Ann Arbor 1981 (Memoirs of the Museum of Anthropology of the University of Michigan 13), 255; P. Robinson, Fossil Occurrence of a Murine Rodent (Nesokia indica) in the Sudan, Science 154 [1966] 264; O. Thomas, A New Species of Nesokia from Mesopotamia, Journal of the Bombay Natural History Society 26 [1919] 422f.
with canalization, with refuse and the transmission of disease. 64 In another environment, without our history of rat-carried plagues, these animals are not only prized, but are often an easily accessible and highly efficient source of protein. Indeed, the New Scientist recently reported 65 that rat soup with a score of 70 (eggs = 100) would equal mutton broth as a source of high-quality protein, beating chicken, whale and soybean!

64 Yet we know that the Romans prized the meat of rodents (see fn. 53 above), and that under certain conditions rats were eaten in modern Europe (cf. Anonymous, The Siege Cookbook, or the Art of Living in Times of Siege by a Homemaker, Paris 1871; cited by R. Freedman, Human Food Uses, London 1981, 14, with recipes for dog, horse and rat).
