Botanical *qaqullu(m)/qāqullā*: A Halophyte Plant in Semitic Languages

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Abstract
In the following study, we will discuss the botanical name *qaqullu(m)* as it appears in Akkadian with derivatives in various Semitic and other Near Eastern languages. Von Soden in *Das Akkadisches Handwörterbuch* identifies the entry with green cardamom (*Elettaria cardamomum*). This causes problems, as cardamom is not endemic to Southern Mesopotamia. As such, this claim deserves further investigation and therefore the goal of this study is to discuss possible identifications of this plant. The botanical *qaqullu* displays an etymological connection between *qāqullā*, as it appears in Aramaic, and the Akkadian noun *qaqullu*(*m*). In this study, we will review the previous lexical treatment of this noun, discuss its possible meaning and the etymologic connection between the Akkadian noun and the Arabic and Aramaic cognates.

Keywords: *qaqullu(m), qāqulla*/*qāqullā, Elettaria cardamomum, Amomum cardamomum, Cakile maritima, Salsola fruticosa/Suaeda fruticosa/Suaeda vera*

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Morphological appearance

The noun *qaqullu(m)* appears differently in all languages in which it is attested.[1] It has been stated that its nominal pattern is not easy to categorize. We can nonetheless assume a triptotic root √*qql*, without deviations in the Semitic languages. This excludes Persian and Turkish, in which it appears with /k/ rather that /q/, but this problem will be discussed below. The vowel /a/ following the initial /q/ is probably short despite the occurrence of one plene spelling in Akkadian *qa-a-qú-li* (HS 1885+: 14'). The Syriac literature presents further

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1 For Akkadian *qaqullu*(*m*), see Meissner 1891, 293f. (*ḳaḳûlu*), AHw, 901b (*qāqullu*), CAD Q 124 (*qaqqullu*, *qāqullu*, *qāqultu*) and Edzard 1983, 133 (*qaqqulu*/*qāqullu*). For Aramaic *qāqullā*, see Brockelmann 1895, 335a; Löw 1924, 500; Sokoloff 1990, 502a; 2002, 1036a; 2009, 1451a.

evidence in the *zqofo* vowel sign for /ā/ in the lexical studies.[2] Following the second /q/, we may suspect a short vowel /u/. This vowel is written plene in Syriac, where the letter *wāw* (ܘ) is found as the *mater lectionis* for the vowel /u/ or /o/: *qāqullā* (ܩܵܩܘܠܵܐ). In the Syriac 'Book of Medicines', the length and quality of the vowels differ for unclear reasons: *qaqollā*. Akkadian and Arabic do not provide evidence for a long vowel /ū/. In fact, the lack of Arabic spellings with *wāw* (و) as vowel letters suggests that it is short. The consonant /l/ is geminated, as is clear from the Akkadian *qa-qu-ul-lu* (CT 14 50:24). Syriac has no orthographic means to indicate gemination, whereas Arabic has the diacritic sign *šadda*; thus, we find *qaqullā* (قاقُلّى).[3] As for its nominal pattern, it appears to be an Akkadian *PaRuSS*, of which some other botanical names are known. We may also consider *PāRuS*, because of the plene spelling in HS 1885+.[4] Plant names in Akkadian are often known to have an unclear etymology and many may be loans. One could consider Sumerian, although this language uses no emphatic consonants like /q/. On the other hand, lengthening of the final consonant occurs frequently in loans that arrived into Akkadian, e.g., *nargallu*, *niglallu*, *parakku*, *sagarrû*.[5] At any rate, the noun construction is unusual for both Aramaic as well as Arabic, especially because the lengthening of the final radical is not common in these languages.[6] The final /u/ in the Akkadian *qaqullu(m)* is no more than the nominative singular case ending. It is therefore not surprising to find a plural form in Jewish

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[2] Note in this aspect that the pronunciation of *zqofo* in the Jacobite tradition has become /o/, though it derives from /ā/. One could therefore transliterate Syriac *qoqullo* rather than *qāqullā*. To be consistent with the other Semitic cognates, only the latter variant is used in this study. Cf. Nöldeke 1904, 7-8 § 8-9.

[3] The use of *šaddah* is confirmed in Brun 1895, 610b; Biberstein-Kazimirski 1860b, 794b. Likewise, Wehr 1979, 863a suggests *šaddah* from its transcription in the lemma, despite the fact that this study otherwise does not use diacritic signs. Cf. *bāqillā* (باقلى) 'a bean' in Biberstein-Kazimirski 1860a, 151a. It likewise may be an Aramaic loan, see Dietrich 1988, 253–55 II 89. Note that for Syriac, Nöldeke 1904, 73 § 121 does not list *qāqullā* as one the few cases with a lengthened third radical. Moreover, there are no similar nouns of the nominal pattern *QāṬūLL(ā)*.

[4] Some botanical names of these patterns: *ḫaluppu(m)* 'a tree'; *ḫarūbu(m)* 'carob (tree)'; *ḫašūru(m)* (*ḫašurru*) 'a cypress'; *kakkussu(m)* 'a plant'; *kamunu(m)* (Nuzi: *kamannu*) 'cumin'; *šakkullu(m)* 'a tree'; *šamūṣu(m)* (*šammaṣu*) 'a plant'; *tatturru(m)* (*tutturru*) 'a type of garlic'. There is therefore no good reason to regard *qaqullu(m)* as an atypical Akkadian word.

[5] Nonetheless, in some cases a consonant may have developed into an emphatic. Note, for instance, Sumerian DUB.SAR 'scribe', which arrived into Biblical Hebrew as *ṭifsār* (טִפְסָר). Although commonly accepted, DUB 'tablet' to Akkadian *ṭuppu* (sic!) must be rejected; see Streck 2009, 136-40, cf. Kaufman 1974, 138 n6.

[6] In Arabic, various QvTvLL patterns occur to a limited extent; however, *QaTuLL* is not one of them. In Syriac, we expect vowel syncope between R_1 and R_2 for the few nouns with geminated R_3, see Fox 2003, 283-86.

Babylonian Aramaic with the absolute state ending *-y* in *qqwly* (קקולי) (cf. Bar-Asher Siegal 2013, 52 § 2.2.1). In the Syriac *qāqullā* (ܩܩܘܠܐ) we usually find a final /ā/ of the emphatic state. It is therefore important to remark that Arabic has either *ʾalif maqṣūrah* (ى) or *taʾ marbūṭah* (ة). The latter suggests a feminine ending *-atun* as if attached to a base *qāqul-*. The *ʾalif maqṣūrah* indicates a long final vowel /ā/, which is also indeclinable. In fact, this *ʾalif maqṣūrah* can best be explained if we accept the Arabic variant as an Aramaic or Syriac loan.[7] Nonetheless, one must admit that Aramaic loans in Arabic generally appear to lose their emphatic state.[8] Two possible explanations may be given for the preservation of the emphatic state in this particular noun. First, an absolute state is not attested following the dictionaries and may not have existed. Second, Arabic usually incorporates Aramaic loans in its own system of nominal constructions and phonological laws, making them very difficult to distinguish from true Arabic nouns (e.g., *zk̲ūṯā* > *zakat* 'alms'; *pūrqānā* > *furqān* 'salvation'; *sfi(n)tā* > *safīna* 'ship', see Retsö 2006, 99b). In the case of *qāqullā*, this would have been considerably more difficult, given the fact that it is not built like a true Aramaic or Semitic noun. In such instances, it would not be unlikely that *-ā* was regarded as a part of word building and arrived this way in Arabic. Moreover, the fact that this is an uncommon botanical name, could explain why the emphatic state was preserved in Arabic, cf. Syr. *alepšrā* (ܐܠܦܫܪܐ) 'bryony' > Arab. *fāšrā* (فاشرى).

Ugaritic and *Cassia*

One morphological explanation of *qaqullu(m)*, is the analysis of a reduplicate pattern of the type *PaSPaS* (*qalqvl*) leading through assimilation to the *qaqqullu(m)*[sic.]. One may note similar cases in Akkadian, e.g., *kakkabu* 'star', *qaqqaru* 'ground', *qaqqadu* 'head' (cf. Fox 2003, 256). This has led a number of authors to compare *qaqullu(m)* to the Ugaritic plant *qlql* (Virolleaud 1934, 81; Cohen/Sivan 1983, 23; Pardee 1985, 57; Stol 1986, Watson 2004, 247). A connection with the Hebrew hapax *qlōqēl* (קָלֹקֵל) has convincingly been rejected by Cohen (1995, 125) as it does not refer to a medicinal plant such as the Ugaritic noun does. Regardless, Ugaritic *qlql* has more convincingly been connected to the fairly well attested Akkadian *qulqulliānu* '*Cassia*' (e.g., Huehnergard 1987, 174; Cohen 1996, 125: Watson 2004, 247). As far as other Semitic cognates are concerned, in Arabic we find *qulqul* (قلقل) 'a kind of cassia' (Biberstein-Kazimirski 1860b, 806a). One may wonder, whether Ge'ez *qʷəlqʷāl* (ቍልቋል) 'euphorbia' with various modern Ethiopian cognates is related (see Leslau 1987, 430b). At any rate, it is unlikely that Akkadian *qulqulliānu* (or a hypothetical shorter **qulqullu*) could have developed into *qaqqullu(m)*[sic] as the vowel /a/ in the latter form cannot be explained this way. Moreover, *qaqullu(m)* has clear cognates

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[7] This is confirmed in Fischer 2006, 37 § 64c, who points out that *ʾalif maqṣūrah* as well as *taʾ marbūṭah* and final *hamzah* may represent the emphatic state of Aramaic loans.

[8] Cf. Retsö 2006.

in Aramaic and Arabic, with a rather distinct meaning from *Cassia* as we will now see. It is therefore unlikely that these plant names would have developed out of *qulqulliānu* without an obvious botanical connection.

Aramaic and Arabic

As already mentioned, the Akkadian *qaqullu(m)* has been identified in Aramaic and Arabic by several scholars. It has also been the cause of extra confusion with respect to the identification of the plant behind the word. It was Meissner (1891, 293 no. 5) who identified the plant with the Aramaic *qāqullā* (**קקולא**) and translated it as cardamom (*Amomum cardamomum*). An early connection was also made by Meissner (1903, 94) with Arabic *qāqulla* (قاقلة) 'cardamom'.[9] This was followed by Löw (1881, 349 no. 296), who had listed the Talmudic Aramaic *qāqullā* (**קקולא**) and the Syriac *qāqōlaḡ* (ܩܩܘܠܓ) denoting cardamom, suggesting that the two nouns were etymologically related to one another. Expanding on this claim, Löw (1924, 500) discussed the two words with the Akkadian *qaqullu(m)* and a further Syriac *qāqullā* (ܩܩܘܠܐ). He refuted a connection between cardamom and the Akkadian *qaqullu(m)* and criticized the Syriac dictionary of Brockelmann (1895, 335) for not properly distinguishing *qāqullā* (ܩܩܘܠܐ) and *qāqōlaḡ* (ܩܩܘܠܓ).[10] An additional connection is made by Löw with the Arabic *qāqulla* (قاقلة) 'cardamom' and *qāqullā* (قاقلى).[11] For the meaning of the latter, Arabic studies have translated it as *Salsola (fruticosa)* (Doze 1881, 296a; Wehr 1979, 863a; Kahl 2007, 332; Paavililainen 2009, 349) or *Bunias kakile*, which is a synonym for *Cakile maritima* (Guigues 1903, 19*; Paavililainen 2009, 349; cf. Townsend/Evan Guest 1980, 877). It should be noted that *Salsola fruticosa* is a synonym for *Suaeda fruticosa*, and is commonly known as *Suaeda vera* or 'shrubby sea-blite'.[12] A rather different identification is found in Nasrallah (2007,

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[9] For *qāqulla* (قاقلة), see also Biberstein-Kazimirski 1860b, 794a: '*1. Cardamome commun, plante. 2. Cakile maritima, plante*.' It is to be regarded as black cardamom with a small and large variant. It is not to be confused with the green cardamom *hāl* (هال) or *hīl* (هيل), see Nasrallah 2007, 666–67. Note that there is a Southeast Asian port with the same name that occurs in the travels of Ibn Battuta, but is not unrelated (Kahl 2003, 147 n175).

[10] As noted by Margoliouth 1927, 310a, confusion between *qāqullā* (ܩܩܘܠܐ) and *qāqōlaḡ* (ܩܩܘܠܓ) already occurs in Bar Ali's lexicon, where *qāqōlag* (ܩܩܘܠܓ) 'cardamom' is given with the translation *qāqulla* (قاقلة) 'saltwort', cf. Gottheil 1908, 362.

[11] Alternatively, this may be read as *qāqullī* (قاقلي), following Corriente 1997, 436b; Nasrallah 2007, 791. This vocalisation could be influenced by Sanskrit *kākoli/ī*, cf. Monier-Williams 1899, 268a. This would be the yellow Himalayan fritillary (Fritillaria cirrhosa) following the online Pandanus Database of plants http://iu.ff.cuni.cz/pandanus/ (accessed 19.03.2018).

[12] *The Plant List* (2013). Version 1.1. Published on the Internet; http://www.theplantlist.org/ (accessed 03.01.2018).

791) who regards it as a salt plant of the sorrel family (genus *Rumex*). Biberstein-Kazimirski (1860b, 794a) is more careful and simply translates *qāqullā* as '*Sorte de plante alcaline dont les chameaux se nourrissent*'. The plant is also found in Andalusian Arabic where it is translated by Corriente (1997, 436b) as '*a kind of saltwort*'. As Arab botanists have recognized the presence of the plant in Nabatean (i.e., the Aramaic of the Fertile Crescent), this is naturally the mediating language of which the Aramaic plant names arrived in Arabic. As mentioned by Ḥanīda Ad-Dīnawarī, the Arabic plant *qullām* (**قلّام**) was called *qāqullā* (**قاقُلّى**) by the Nabateans. The plant is being described as being suitable for consumption when served with yoghurt. It is further compared with the plant *ʾušnān* (**أشنان**) another saltwort of the family *salsola* (see Hamidullah 1973, 221–22 no. 908; cf. Doze 1881, 296a). The name *qullām* itself refers to the shape of the leaves of the plant as it means 'looking like pens' (Nasrallah 2007, 791). In the Arabic commentary of Dioscurides' "*Materia medica*" we find *qāqullā* further identified as the Nabatean name of *mullāḥ* (**ملّاح**) 'a salty plant' named after the Arabic word for salt *milḥ* (see Dietrich 1988, 487-88 III 125). [13]

Returning to Akkadian, von Soden followed Meissner's initial publication, perhaps not aware of Löw's entry. This led to the meaning 'green cardamom' (*Elletaria cardamomum*) for *qaqullu(m)*[sic] appearing in the AHw (p. 901b) pointing out that the Aramaic and Syriac cognates are loans from Akkadian. While CAD Q's entry *qaqqullu*[sic] is more generally translated as 'a plant', the more recent CDA denotes it again, following von Soden, as 'green cardamom'. [14]

Recently, Ciancaglini (2008, 250) re-opened the discussion by suggesting that *qāqōlag* (ܩܩܘܠܓ) is a loan in Syriac from Middle Persian, with *qāqullā* (ܩܩܘܠܐ) serving as a re-loan. It can be shown that *qāqōlag* (ܩܩܘܠܓ) is a Syriac loan by comparing it to the similar *qqng* (ܩܩܢܓ) 'winter cherry' (Sokoloff 2009, 1451a), which derives from the Middle Persian *kākanag* and arrived as *kāka/inğ* (كاكنج) in Arabic (Biberstein-Kazimirski 1860, 916b; Wehr 1979, 945b).[15] Gignoux (1997-99, 198-99) points out that the Persian /k/ becomes /q/ in Syriac and goes on to explain how the Persian *qāqulī* must be a re-loan from *kākulag* (cf. Greater Bundahišn 16 21), mediated through Syriac in order to account for the /k/ > /q/. The dictionary of Steingass (1892) lists *qāqul(l)a(t)* (قاقلة) as 'cardamoms' and

[13] The entry is a commentary of the Greek ἀνδρόσαχες (أندروصاقاس), a further Persian translation *al-kušmalaḥ* (الكشملخ) is given.

[14] Note also Cohen/Sivan 1983, which again list *qāqullu*[sic.] as '*Elettaria cardamonum*' or 'green cardamom'.

[15] Gignoux 1997-99, 197. Cf. Persian in Steingass 1892, 1007, who reads 'winter cherry' as Arabic *kāknağ* (كاكنج) and Persian *kākuna* (كاكنه).

qāqulī (قاقلی) as 'name of a salt-plant' (p. 948b).[16] The noun is also found in Ottoman Turkish and appears as *kākulé* (قاقله) (Redhouse 1856, 868a).

Aramaic: The Talmud

The oldest attestation of the Aramaic *qāqullā* (**קקולא**) is found in the Talmud. Interestingly, there is a cited variant in one manuscript (**קילקולא**).[17] There is only one attestation in the following proverb that seems to refer to the low economic value of the edible plant.[18]

דאכיל אליתא טשי בעליתא דאכיל בקקולי אקיקלי מתא יתיב

'the one that eats fat-tail will hide himself in the attic (from his creditors), the one who eats *qāqullē* (pl.) will sit on the garbage dumps' Pesaḥim 114a

The plant *qāqullē* (קקולי) is mentioned in alliteration with 'garbage dumps' *ʾqyqly* (אקיקלי). The passage refers to the plant being consumed by the poor, cf. the consumable salt-weed *mallūaḥ* (מַלּוּחַ) in Job 30:4 or Qiddushin 66a in the Talmud. As for the translation of *qāqullē*, Jastrow (1903, 1409b) provides the following: '*a sort of cress used by the poor (cardamom or nasturtium)*'.[19] Indeed, watercress belongs to the *nasturtium* genus and is an edible vegetable endemic to the Levant as well as to the marshes in Iraq. It can very well be consumed raw. Sokoloff (2002, 1036a; 2017, 574a) preserves the meaning 'sea rocket' and compares it with the Akkadian *qaqqullu*[sic]. It is self-evident that whatever plant is meant here, it is a vegetable used for consumption. In this respect, *Salsola fruticosa* is edible.[20] One may also compare it to *Salsola soda*, a related salt-tolerant plant. It grows in the Mediterranean (but not in modern Iraq) and is consumed cooked, particularly in Italy (*Barbe del frate saltate*), but can also be eaten raw. Likewise, *Cakile maritima* is edible and is known to have been consumed cooked in times of food

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16 It should be noted that *qāqullā* (قاقلی) as a 'name of a salt-plant' has been given as Persian *al-kušmalaḫ* (الكشملخ) in Dioscurides' "Materia medica", see Dietrich 1988, 487.

17 Jastrow 1903, 1409b. This variant may suggest that *qaqullu(m)* goes back to a duplicate pattern of the type *PaSPuS* > *PaPPuSS*. In this regard, one may note the common Akkadian *qaqqadu* 'head' (< **qadqadu*) or *baqbaqqu* 'a small gnat' or *kalkallû* 'a bowl'. *PaSPuS* patterns are rare, but note *kakkullu* (< **kalkullu*) 'vessel for beer making, wooden box' and cf. Arab. *kalkal* (كلكل) 'chest', Mishnaic Hebrew *kalkālā* (**כַּלְכָּלָה**) 'provision, basket with supply'.

18 With respect to the low economic value of the food, we may compare this passage with Biblical Hebrew *balleḥem haqqlōqēl* (**בַּלֶּחֶם הַקְּלֹקֵל**) 'the miserable food' Numbers 21:5. The exact meaning and etymology of the hapex *qlōqēl* remains uncertain though may derive from the root √qll 'to be little' Cf. Cohen 1995, 125.

19 In this regard, also note the discussion of Stol 1983 on Bab. *saḫlû* ~ Ass. *kuddimmu* as a form of edible cress (*Cardamum*).

20 Quattrocchi 2012, 3611.

scarcity (Austin 2004, 157a). This makes its meaning fit somewhat better with the idea of a man sitting outside eating the *qaqūllē*. However, we have not been able to find evidence that the habitat of *Cakile maritima* stretched further than the Levantine coast, i.e., it does not appear to have grown in Babylonia. Other than the passage of Pesaḥim, which was probably written in Judea, none of our classical attestations is likely to refer to *Cakile maritima*. In addition, note how Biberstein-Kazimirski (1860, 794a) translates the Arabic *qāqulla* as *Cakile maritima* rather than the expected *qāqullā*. In the 'Flora of Iraq' Townsend/van Guest (1980, 878) also list related *Cakile arabica*, though this plant is only found in the South Eastern desert area of Iraq.

Medicinal use in Syriac and Arabic

Various synonyms for cardamom are used in the Syriac 'Book of Medicines', translated by Budge in 1913. The text itself is a Syriac translation of a Greek original. We therefore find a Greek form *qūrdmānā* (ܩܘܪܕܡܢܐ) (p. 148:11) used for cardamom in a recipe involving a number of dry drugs as an ointment on painful joints or parts of the digestion. The noun *qaqollā*[sic] (ܩܩܘܠܐ) (p. 162:5), with a deviating vocalization, is translated as 'a type of salsola' (*Salsola fruticosa*). It is used as an ingredient for treating a sore throat, either by blowing dry powder into the mouth or mixing it with honey and using it as gargle. This probably has roots in the idea that both honey and salt could ease a sore throat; *Salsola fruticosa*, as a halophyte plant, would contribute to such a cure. In this form, *qaqollā*[sic] (ܩܩܘܠܐ) is also found in a recipe to sweeten the mouth (ܡܕܒܫܐ ܕܒܝܫ), by grinding the plant with other ingredients into powder and making pills from it or mixing it with wine (see p. 174:11; cf. 174:18). Likewise, with another deviating vocalization, *qāqōlāḡ* (ܩܩܘܠܓ) (p. 173:24) is found in a recipe 'which polishes the teeth and sweetens the mouth' (ܕܡܚܐ ܫܝܢܐ ܘܡܕܒܫܐ ܦܘܡܐ). It is applied by scrubbing the teeth. Furthermore, it should be noted that Budge gives *qāqula* (قاقلة) as the Arabic cognate. In the next recipe, with the same purpose, *qāqōlāḡ* is mentioned alongside *šōšmīr*[sic] (ܫܘܫܡܝܪ) (p. 174:4), which Budge translates as *Amomum* (or black cardamom), with the Arabic cognate شوشمير.

The situation in Arabic medical texts is similar to that in the Syriac texts; we find the plants *qāqullā* and *qāqulla* in various documents. In case of the works of two physicians, the Nestorian Ibn at-Tilmīḏ as well as the Persian Ibn Sīnā (both of whose writings are in Arabic), we find *qāqullā* used to stop nose bleeds, which supports our idea of a saltine plant.[21] We already stated how most studies translate the plant as *Salsola* (*fruticosa*) (Wehr 1979, 863a; Kahl 2007, 332; Paavililainen 2009, 349), better known as *Suaeda fruticosa* or *Suaeda vera*. Latin translations of the texts have *qāqullā* translated as *Alkakile*, *Alchachille* or *Cachille*

[21] For Ibn at-Tilmīd, see Kahl 2007, 303 no. 413 (as *Salsola*). For Ibn Sīnā, see Paavilainen 2009, 141 #2, 143 #11 (as saltwort).

(Paavilainen 2009, 445; 702). The Latin translations of Arabic gave name to the botanical genus *Cakile* (Quatrocchi 2000, 388; Austin 2004, 156b).[22]

Attestations in Akkadian

The noun *qaqullu(m)* occurs in the Akkadian dictionaries as *qaqqullu* (*qāqullu*, *qāqultu*) CAD Q 124 '(1) a plant, (2) a tree, (3) a bird' and as *qāqullu* in AHw 901b '*Elettaria cardamomum*'. As a plant, *qaqullu* occurs frequently in various Mesopotamian lexical lists, where it is attested in enumerations of plants together with *mangu* and *šāmiṭu*, i.e., [ú.teme] = *man*-[*gu*], *qaq*-[*qu-lu*], *š*[*a-me-ṭu*] Hh XVII 78ff. (MSL 10, 86); ú.$^{sag.ga}$teme = [*qa-qu-lum*] Ugarit recension of Hh XVII (MSL 10, 109); te-e ú.naga-*tenû* = *man-gu*, *qa-qu-lum*, *šá-me-ṭu* Diri IV 6ff.; te-me naga-*tenû* = *qa-qu-lum*, *man-gu*, *šá-mi-ṭu* A VII/4: 98f. (MSL 14, 468); ^{ú}*man-gu*, ^{ú}*sa-me-ṭu*, ^{ú}*qa-qu-lu* Uruanna II 278-280; *man-ga*^{sar}, *šu-mit*^{l}(PAP)-*tú*^{sar}, *qa-qu-ul-lu*^{sar} list of plants in the garden of Merodach-Baladan II (CT 14, 50: ii 3-5). The equation of Sumerian ú.$^{sag.ga}$teme, te-e ú.naga-*tenû* and te-me naga-*tenû* with the Akkadian group of *qaqqullu*, *mangu*, *šāmiṭu* defines these plants as alkaline plants.[23]

The entry of *qaqullu* as 'a type of field' (NB) in CAD Q 125a does not refer to fields, but rather to the toponym Til-qaqulli (see Zadok 1985, 312; Oelsner 1989, 279).[24] Til-qaqulli, '(ruin) mound of *q*-plant(s)',[25] is named after the *q*-plant (Oelsner 1989, 279). No reference is made to the *q*-plants in texts regarding Til-qaqulli.

As a tree, *qāqultu* is listed as a separate entry in AHw 901b and its attestations are limited to ritual weapons only.[26] It cannot be said with any certainty whether *qāqultu* is related to its namesake, denoting an alkaline plant.

As a bird, *qaqullu* is only known from versions of the lexical list Murgud (see MSL 8/2, 170; 172) where it is consistently written *qa-qu-ul-lum*. There is no reason to assume a relationship between *qaqullu* the plant and the bird; the latter is possibly an onomatopoeic rendering. Moreover, there are various plant names in Akkadian that also seem to refer to animals, e.g., *ṣallamtu,* 'basalt, a plant, a tree, a bird, a snake'; *aluzinnu*, 'buffoon, clown, a plant'; *bukānu,* 'a wooden

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22 Townsend/Evan Guest 1980 (p. 877) list both Arabic *qaqullā* as well as *qaqulla* as possible origin of Latin *Cakile*.

23 Civil 1987, 48f.

24 As argued by Oelsner 1989, 279 CAD Q mistakes the sign DU_6 for KU.

25 As for the location of Til-qaqulli, Jursa 1995, 235 establishes that it is to be located in the direct vicinity of Āl-Šamaš, i.e., south of Sippar. Seen the fact that salt marshes are common in southern Iraq, it stands to reason that the exceptional existence of a salinized tract of land in the northern part of the Babylonian alluvium and the resulting growth of the halophyte in question there was motivation of naming the toponym Til-qaqulli.

26 Borger 1973, 182.

pestle, an insect, a plant'; *kalû,* 'a crane, thorny plant'; *usābu,* 'a bird, a turtle, or a plant'. Cf. constructions like *ašāgu,* 'a kind of acacia, a bird (*iṣṣur ašāgi*)'.

As for the *qaqullu(m)* plant, there is only one attestation outside the lexical lists, which is the Gulkišar-epic (HS 1885+).[27] Here, *qaqullu(m)* appears among various metaphoric expressions denoting the protagonist's wish to exterminate the troops of the enemy and their offspring: (14') [*ú-ša-a*]*m-ma-aṭ ki-i qa-a-qú-li a-tab-ba*-[*ak*] '[I will] tear (them) loose! Like *qaqullu* I will throw them [down]!' A similar reference is found in an Old Babylonian Sumerian Balaĝ (MMA 86.11.62), in the recent edition by Volk (2005, 4-10), r. 18'. $UL_4.UL_4$-tur-ra $UL_4.UL_4$-[maḫ-a] r. 19'. $UL_4.UL_4$ ^{ú}téme^{sar}-gin$_7$ šú-šú-[a] 'The little *kiši*-plants, the [finest] *kiši*-plants, the *kiši*-plants altogether are overturned like a *qaqullu*-plant.'[28] This suggests that *qaqullu(m)* as a plant is small and easily torn out.

Conclusions

The noun *qaqullu* or *qaqqullu* is an Akkadian botanical name. An assessment of possible cognates of *qaqullu* in Syriac and Arabic clearly shows that the latter two languages each feature a pair of plant names that appear in a similar manner as the Akkadian botanical term—the Syriac *qaqūllā ~ qqlg* (unvocalized) and the Arabic *qāqullā ~ qāqulla*. The second of each pair appears to refer to a kind of cardamom, which led von Soden to translate the Akkadian noun likewise. It appears that the Syriac *qqlg* may very well be a loan of Persian origin and is related to the Arabic *qāqulla*. The Syriac *qaqūllā* refers to an edible vegetable, which is already clear from an early attestation in an Aramaic passage of the Talmud. As an Aramaic botanical name it arrived in Arabic as a loan word. Its occurrence as a vegetable is indirectly confirmed by the Babylonian toponym Til-qaqulli, which according to its name suggests that the plant was common in its vicinity. This would not be possible in the case of cardamom, as it is not endemic to Iraq. Based on the lexical evidence, the Akkadian *qaqullu* is most certainly an alkaline plant. The cognates *qaqūllā* (Syriac) and *qāqullā* (Arabic) are related to the Akkadian *qaqullu* and their identification as an alkaline plant is primarily based on their use in various medicinal texts. The fact that this type of plant is edible suggests that it belongs the botanical genus of *Suaeda*, most likely *Suaeda fruticosa* or *Suaeda vera,* 'shrubby sea-blite'. This halophyte plant is endemic to the Arabian Peninsula, the alluvial plains of the fertile crescent and to the salt marshes in southern Iraq, which would make it an ideal candidate for *qaqullu*, *qaqūllā* and *qāqullā*.

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[27] Zomer (*forthcoming*).

[28] For téme = *qaqullu(m)*, see Volk 1990, 37.

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