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CARROT
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CARROT, the taproot of *Daucus* L. subspp., etc. (family Umbelliferae), traditionally called *gazar* (arabicized as *jazar*) or *zardak* (lit. "the little yellow one"), and later also *havīj* in Persian (see below).

Indigenous "carrots"—wild or cultivated. Several species and/or varieties of *Daucus*, etc., in Persia have been reported by modern botanists. Parsa (II, pp. 853-57) has described eight species of *Daucus* in addition to *D.carota* L., which is believed by many authors to be the wild carrot that has developed into our various cultivated ones. While wild carrots are usually referred to as *havīj-e waḥšī/ṣaḥrāʾī/kūhī*, etc. (lit. "wild/field/mountain carrot"), he has recorded (VIII, pp. 63-64) local names for only two of them: *panīr-vāš* (lit. "cheese wort") for *D. maximus* Desf. (in Gīlān in Rūdbār and along the Safīdrūd); and for *D. persicus* Boiss., the Turkish designations *āq-bāš* (lit. "white-head[ed]") in Ḵalḵāl (Azarbaijan), and *ešak-zardakī* (lit. "dog carrot") in Baḵtīārī (cf. also the depreciatory *tašīgazar* "porcupine carrot" said of a kind of wild carrot in parts of Māzandarān). Moẓaffarīān, using a more up-to-date taxonomy and terminology for the Umbelliferae of Iran, has dealt with approximately the same species under the two genera *Daucus* L. and *Astrodaucus* Drude, identifying the cultivated native carrot as *D. sativus* (Hoffm.) Röhl. (pp. 141-45; cf., however, the discrepancies between his and the latest taxonomy, that of K. H. Rechinger, "Daucus," pp. 136-40, and of M. G. Pimenov, "Astrodaucus," in *Flora Iranica*, ed. K. H. Rechinger, no. 162, *Umbelliferae*, Graz, 1987). To these must be added another, noteworthy, "wild carrot" commonly called *šaqāqol*. The kinds of the *šaqāqol* native to the "Iranian" area have been variously

identified by modern botanists. Dymock et al. reported (in 1891; II, pp. 136-37) that "in Persia [the umbelliferous] *Trachydium Lehmanni* Benth. & Hook. f. [in Moẓaffarīān, p. 83, = *Eremodaucus lehmannii* Bge] . . . produces the shekákul of Asia," and that "[J.E.T.] Aitchison, when in the Badghis [Bādgīs] district with the Afghan Boundary Commission, observed the roots of this plant being collected for export to India as shekákul." R. Alava ("*Malabaila* Hoffm.," in *Umbelliferae*, pp. 508-10) has described the indigenous *šaqāqol* as *Malabaila secacul* (Miller) Boiss., with two subspecies: subsp. *secacul* (= *M. sekakul* Boiss., *Pastinaca secacul* (Miller) Banks & Soland., etc.) and subsp. *aucheri* (Boiss.) C. C. Townsend (for the historical description of wild carrots, including the *šaqāqol*, see below). Moẓaffarīān (pp. 138-39, and fig. 346) reports the occurrence of *Malabaila secacul* Banks & Sol. [*sic*] in some points in Azarbaijan, Karaj, Ḵūzestān, and Māzandarān and, outside Persia, in northern Iraq, southern and eastern Anatolia, western Syria, and Palestine.

The cultivated carrots. The wide distribution and variety in Persia of the wild carrot (the original of the edible *gazar*sand *zardak*s) do not seem to corroborate Laufer's assertion that "it was the Arabs who carried the carrot to Persia in the tenth century [A.D.]" (p. 452), nor his further contradictory statement that "the Persians then [i.e., in the Islamic period] became acquainted with the carrot under the Arabic name *jazar* (*jezer*), which, however, may have been derived from Persian *gazar* (*gezer*)" (p. 453; cf. also *The New Encyclopaedia Britannica* II, 15th ed., 1985, s.v. Carrot: "The carrot [*Daucus carota*] is native to Afghanistan and neighbouring lands"). The indigenous *gazar/zardak*—whether distinct species of *Daucus*, i.e., *D. carota* L. or *D. sativa* Hoffm., or a hybrid of the former and *D. maxima* L., or a variety of *D. carota* L., i.e., var. *sativa* DC. (see Zargarī, 4th ed., I, p. 522)—has long been widely grown in steppe areas in Persia, particularly in Azarbaijan, Kurdistan, Luristan, Arāk, Khorasan, and Yazd. Its names all over the country exhibit a striking similarity, e.g.: Bastaki *gozrak*; Behdīnan *gezer*, *zardak*; Damāvandi *gazar*; Farāmarzānī *gezar*, *gozrak*; Gīlakī *gəzər*, *zərdək*; Konjī/Evazi *gozrak*; Khorasani *gezer* (Sabzevār), *zerdak* (Qūčān); Kurdish (Mahābād) *gēzar*; Ḵūri *gazar* [?], *gazarū* (wild carrot); Laki *gezer*; Lāri *gazrak*; Luri *zardak*, *bīḵ-zemīn* (lit. "ground root"); Māzandarāni *zarda/ek* (and probably, *gazər*); Nāʾīni *gīzer*; Sarvestāni *zīrzamīnī* (lit. "underground"); Ṭāleši *gēzēr*; Tāti (northern) *gazar*, (southern; Sagzābād) *havīja*; cf. also Pashto *gāzara*, *zardaka*, the probably cognate Hindi/Urdu *gājar*, and western Turkish *keše/īr*, said to be a corruption of [dialectal] Persian *gezer* (H. K. Kadri, *Türk lûgati* IV, Istanbul, 1945, p. 85,

s.v.). In Turkish-speaking areas, Turkish *yer köki/ü* (lit. “ground root”) or just *kök* (lit. “root”) is prevalent (see also *hāvūj/č* below).

Historically, Rašīd-al-Dīn Fażl-Allāh (d. 718/1318; pp. 195-96) provides agricultural hints about the *gazar*, which “varies in every province according to climate and soil (the richer the soil the larger the *gazar*),” and which “occurs in different colors—red, yellow, violet, and green.” In 921/1515-16, Abūnaṣrī Heravī (p. 149) describes the cultivation of the estival (*tammūzī*) and hibernal (*zemestānī*) varieties of the *jazar* in the Herat area.

The native *gazar* or *zardak* has (according to soil and cultivars) conical or twisted cylindrical roots up to 45 cm long, pale to bright yellow skin (occasionally, light to dark violet, or variegated yellowish and violet), and more or less tender, juicy and sweet flesh. Despite its high productivity, its marketability is low because of its shape, large size, and relatively inferior nutritious value. It is grown mainly for local consumption (Ṭabāṭabāʾī, I, pp. 691-99; see also its culinary uses below).

The current name *havīj* is a rather late designation. Dehḵodā (*Loḡat-nāma*, s.v. *ḥavīj*) and, repeating him, Moʿīn (*Farhang-e-fārsī*, s.vv. *ḥavīj* and *ḥavīj*) believe that *havīj* is a corrupt spelling for *ḥavīj*, itself originally from the Arabic phrase *ḥawāʾej al-qedr* (in Jalāl-al-Dīn Rūmī, quoted by Dehḵodā, *ḥavīj-e dīg*), lit. “the necessaries of the cooking pot” (i.e., kitchen provisions), the meaning of which has later narrowed so much as to designate one of those *ḥawāʾej*, namely the carrot (cf. Dozy, I, pp. 333-34, who records, from Arabic sources, *ḥawāʾej* as also meaning “the provisions intended for the kitchen and table of the prince,” and *ḥawāʾej-ḵāna* as the store where the provisions were kept). The word has also passed into Azeri and Osmanli Turkish as *ḥavīj/hāwūj/hāvūč*, etc., used concurrently with *yer köki*.

The name *ḥavīj* is applied principally to the modern orange-red varieties of the cultivated carrot, which originally were developed about 1830 in France from the wild type and which were introduced into Persia as *ḥavīj-e farangī* “European carrot” during the first forty years of the reign (1848-96) of the Qajar Nāṣer-al-Dīn (see Eʿtemād-al-Salṭana, I, p. 137). More palatable, nutritious, and shapelier than the *gazar/zardak*, this carrot, which is now usually referred to as *ḥavīj-farangī*, has supplanted the latter in nationwide consumption. It is extensively cultivated, commercialized, and consumed (see its culinary and other uses, below).

Culinary uses, etc. The earliest indication in our sources of the native *gazar* as a food article is in the facetious *Dīvān* of Bosḥāq Aṭʿema Šīrāzī (d. ca. 830/1426-27). Beside numerous cursory references to it (e.g., pp. 15, 60, 91), Bosḥāq casually mentions some of its uses, e.g., as the distinctive ingredient of *galya-ye gazar* (p. 24) and as an ingredient (along with sesame oil and garlic) of a pilaw featuring cooked partridge or pigeon (p. 60). *Ḥalwā-ye gazar* is also mentioned several times (e.g., pp. l2, 15, 90, and particularly p. 60, where it is poetically indicated as a remedy for pains in the loins). Much more information about the culinary use of the *gazar* is available from the Safavid period. As indicated by Ḥājī Moḥammad-ʿAlī *Bāvaṛčī-e bagḏādī* "the cook from Baghdad" in the *Kārnāma* (a cook book compiled in 927/1520-21 for a notable of the time), the *gazar* was used as an ingredient in a kind of *āš* (*āš-e ḥalīm*, p. 66) and in five kinds of pilaw (namely, three varieties of *šīla-palāv*, pp. 111-13, *nargesī-palāv*, p. 115, and *qabūlī-palāv*, p. 118). In the same period, Nūr-Allāh, a cook at the court of ʿAbbās I (r. 985-1038/1587-1628), reports the use of the *jazar* as an ingredient of two kinds of pilaw (*nargesī-palāv*, p. 216, and the "simple" *šola-palāv*, p. 248), and of four kinds of *āš* (namely, *bagrā-ye kᵛārazmī*, p. 242, *āš-e rešta*, p. 243, *qeyma-šūrbā*, p. 245, and *āš-e ḥalīm* p. 246). From the Qajar period, Mīrzā ʿAlī-Akbar Kāšānī, chef at the court of Nāṣer-al-Dīn Shah, using exclusively the word *ḥavīj* (probably meaning the "European carrot"), indicates the culinary uses of the carrot as follows (in the *Sofra-ye aṭʿema*, a manual of Persian cookery written in 1301/1884 at the request of Dr. J. D. Tholozan, French chief physician to the shah): as the distinctive ingredient in carrot *ḥalwā* (p. 48), carrot pilaw (p. 13), carrot *kūkū* (omelet, p. 30), and carrot *yaḵnī* (p. 44); as one of the ingredients of *kalam-palāv-e šīrāzīhā* (cabbage pilaw, Shirazi-style; p. 14), and a variety of *fasūjan* (i.e., *fesenjān*; p. 21).

In our times, the *gazar* or *zardak*, beside being eaten raw, is used in various regional dishes, for instance, in the Gīlānī dishes *gəzər-(v)āvīj/-qūrmə* (a kind of omelet; Ḵāvar, p. 50), and *āš-e gal(e)yə* (a very elaborate *āš*; ibid., p. 110). Nationwide, the *ḥavīj-farangī* is used as the distinctive component of carrot pilaw, carrot *ḵᵛoreš, ḵᵛoreš-e šešandāz-e ḥavīj/zardak*, carrot *ḥalwā* (Emāmī, p. 111), carrot pickles, and carrot preserve. It is also used as one of the ingredients of "yogurt *kūkū*" (Montaẓemī, pp. 516-17), "tangerine ḵᵛoreš" (ibid., pp. 600-01), *ṭās-kabāb* (optionally), *toršī-e* (*sabzī-e*) *maḵlūṭ* "mixed (vegetable) pickles," and (*sabzīhā-ye*) *šūr* (mixed vegetables in salt water), as well as in a number of popular Western-style soups, salads, etc. (e.g., *sūp-e jow* "barley soup," and *borš* "borscht"). The consumption of freshly expressed *ḥavīj* juice has steadily been on the increase since the 1330s Š./1950s owing to the

popularized knowledge of carotene (pro-vitamin A) and other vitamins which the carrot is rich in so that today *āb-e ḥavīj* is the most popular (and probably the least expensive) "fruit juice" offered in innumerable refreshment shops and sidewalk booths in large cities. In Hamadān, reportedly, drinking the *zardak* juice has become very popular (Ṭabāṭabāʾī, I pp. 698-99).

Carrots in classical medico-botanical sources. The information of the Islamic-period medico-pharmacological authors on carrots, their varieties, and medicinal properties derives mainly from the Greeks Dioscorides, Galen, etc. The traditional distinction of the *jazar* into cultivated (*bostānī*, lit. "garden-grown") and wild (Ar. *barrī*, Pers. *daštī*) species has been adhered to: they correspond respectively to Dioscorides's *staphulinos* (arabicized as *eṣṭāfālīnūs*, *eṣṭafelīnūs*, etc.) and *staphulinos ágrios* (arabicized as *eṣṭāfālīnūs aǧrīūs*, etc.; see, e.g., Ebn al-Bayṭār, s.v., *jazar*, I, pt. 1, pp. 161-63; Ebn Maymūn, Ar. text, p. 11, no. 73; Tonokābonī, p. 79, s.v. *esṭāfalēs*). It was generally accepted that the usable parts of the wild carrot (roots, leaves, seeds) were medicinally more potent in their numerous common properties than the counterparts of the cultivated species. Of those properties ʿAlī b. Sahl Ṭabarī, author of the oldest known *konnāš* (medical compendium) in the Islamic world (*Ferdaws al-ḥekma*, comp. 236/850) points out only the following: "The *jazar* is hot and moist, diuretic, and aphrodisiac" (p. 380); "preserved (*morabbā*) *jazar* is good for the back [*ẓahr*, as the supposed source of the sperm and virility], and for sexual potency" (p. 393). Mowaffaq Heravī (fl. ca. 370-80/980-90), author of the oldest extant pharmacological treatise in Persian, the *Ketāb al-abnīa*, reports the following (p. 91): "According to Galen, the *jazar* is hot (*garm*) and gentle/lenient [*sic*: *narm*] in the first degree, *bādangīz* (flatulent, inflating), aphrodisiac, diuretic, emmenagogue, deobstruent (especially its seeds), difficult to digest; a poultice of its pounded leaves on a contusion will heal this" (for Galen's actual statements, misrepresented in Heravī, see Jālīnūs apud Ebn al-Bayṭār, op. cit., p. 162); "the wild *jazar*, called *šašqāqol* [see below], is a more potent aphrodisiac. "The same emphasis on the aphrodisiac virtue of the carrot is manifest in the *Ketāb al-aǧrāż al-ṭebbīya* of Esmāʿīl Jorjānī (d. 531/1136): "The *gazar* is hot in the second degree and [*sic*, probably meaning "or"] in the first. It is diuretic. Its seeds are more potent. The *gazar*, especially its wild kind, strengthens the venereal power" (p. 590). Ebn Sīnā (370-428/980-1037; I, bk. 2, pp. 287-88) deals with the *jazar* by mentioning (mistakenly?) the three kinds of *daukos* described by Dioscorides (see the *dawqū*, below). As to its properties, he adds mainly the following: "It is hot to the extreme of the second degree, and moist in the first. A poultice of its

pounded seeds and leaves will cure phagedenic sores. It is good for pleurisy and chronic cough. It is indigestible, but its preserve is easier to digest, and good against dropsy. The *jazar*, especially the *dawqū* [see below] relieves colic, and is a powerful diuretic (particularly the seeds and leaves of the wild kind). The *jazar* and especially the seeds of the cultivated kind are more *nāfeḵ* (flatulent, tumefacient) and [therefore] stimulate sexuality (the seeds of the wild *jazar* are not potent in this regard)."

The *dawqū* (can also be read as *dūqū*) casually mentioned above by Ebn Sīnā, the *qawqalīs*, the *badrān*, etc., designate some other kinds of carrots. The word *dawqū* (or *dawqūā*, e.g., in Aḵawaynī Boḵārī, p. 383 and passim), as also indicated by Ebn al-Bayṭār (I, pt. 2, p. 120, s.v. *dawqūā*), is arabicized from Greek *dawqos* (i.e., *daukos*; actually, according to Meyerhof [in Ebn Maymūn, p. 50, n.], from the genitive of the latter; cf. also Latin *daucus*). The Greeks' *daukos*, as described by Dioscorides (see Ebn al-Bayṭār, op. cit., p. 119, s.v. *dawqos*; French tr., II, pp. 134-35), was like the carrot (*staphulinos*)—not identical with it; it was of three kinds, one of which had leaves like those of the coriander, an umbel like that of the *staphulinos*, and pungent seeds looking like cumin seeds (see also Dymock et al., op. cit., p. 135). Ebn al-Bayṭār (loc. cit.) adds that "the seeds of this kind of *dawqos* are known in Syria as *qomayla* (diminutive of *qamla* ["louse"])," and that the plant itself "is called *ḥašīšat al-barāgīṭ* [lit. "fleas wort"] in Jerusalem and its environs, because people smear its seeds with fragrant oil, scatter them on their beddings, and the odor of the seeds makes the fleas numb and [thus] unable to bite." Tonakābonī (pp. 393-94, s.v. *dawqos*) remarks that this kind of Dioscorides's *dawqos* is called *keyk-e vāš* (lit. "flea wort") in the (Ṭabarī) dialect of Deylam/Ṭabarestān, because sprinkling its pounded seeds on the bedding prevents harm from fleas. As reported by Leclerc (Ebn al-Bayṭār, Fr. tr., 11, p. 135, n.), Dioscorides' three kinds of *daukos* have been identified by C. Sprengel respectively as the umbelliferous *Athamanta cretensis*, *Peucedanum cervaria*, and *Seseli ammoides* (this one referring to the above-mentioned *ḥašīšat al-barāgīṭ*).

The Islamic-period authors, however, have applied the term *dawqū* only to the seeds of the wild *jazar* whatever the identity of the plant(s) so labeled may have been, including the *šaqāqol* (see, e.g., Heravī, loc. cit., Majūsī, II, p. 108, Kāsānī, I, pp. 220-21, Ḥājī Zayn-e ʿAṭṭār, p. 189). Among our authors, Aḵawaynī Boḵārī has the greatest number of medicinal uses for the *dawqū*(*ā*) (see the index, op. cit.). Schlimmer, who reported many of the pharmacological and therapeutical practices of Persia in 1874, says (p. 179) that carrot seeds are

called *toḵm-e zardak* "*zardak* seeds" and *dūqū*, and are used "as a derivative diuretic in brain and chest ailments." The term *dawqū* is no longer used in Iran, although the *toḵm-e ḥavīj-e īrānī* "Persian carrot seeds" still figures on the inventory of some old-fashioned drugstores (see Ṣalāḥ-al-Dīn Aḥmad et al., list of the simples in a Tehran drugstore, p. 2).

The *qawqālīs/qūqāles* is another kind of wild *gazar* mentioned by some authors. Dioscorides' description (apud Ebn al-Bayṭār, s.v. *qaw/ūqāles*, II, pt. 4, p. 40) runs mainly as follows: "Some people call it *dawqūaḡrīā* ["wild *daukos*"] . . . Its small, pubescent leaves resemble those of the fennel; it has a white, fragrant umbel. It is eaten raw or cooked. It is diuretic. "As to its medicinal properties, Ebn al-Bayṭār (ibid.) quotes Abū Jaʿfar Aḥmad Ḡāfeqī (d. a.d. 1164), who himself reports from the author of *al-Felāḥa* [?]: "It is deobstruent, resolvent, diuretic, carminative . . ., laxative, and calms colic. Steady friction of the gums with its expressed juice cures gingival diseases. "Ḥājī Zayn-e ʿAṭṭār (*Eḵtīārāt-e badīʿī*, comp. 770/1368-69; p. 404), after summarizing the two quotations just mentioned, adds that the *qawqāles* = *dawqūā barrī* is called *tara-ḵar* and its mountain variety, *badrān* in the [Persian] dialect of Shiraz. The author of the *Borhān-e qāṭeʿ* explains that "the *badrān* is a plant looking like *tor(o)b* (horseradish), very fetid, and [therefore also] called, *gandgīā*(*h*) [lit. "fetid plant"]" (ed. Moʿīn, I, s.v.), and that "the *tara-ḵar* is a kind of *badrān* . . ., the seeds of which are called *qord/ṭomānā* in Greek" (I, s.v.). (However, from two distichs of Bosḥāq Aṭʿema Šīrāzī [p. 15, vv. 2-3] it appears that, though he did not consider the *badrān* on a par with "the *gazar*, turnip, beet, cabbage, radish, and squash/pumpkin," he did not exclude its culinary use.) According to Ibn Maymūn (Ar. text, p. 36, no. 334), *qard/ṭamānā* is the wild variety of the *karawīā rūmīya* ("Roman/Byzantine caraway"). Meyerhof explains (in Ebn Maymūn, p. 168, n.) that the medieval Arab herbalists-translators have mistakenly applied *qo/ardamānā* (the Syriac form of a Greek word) to the Greeks' *kýminon ágrion* "wild cumin," now identified as *Lagoecia cuminoides* L. Moẓaffarīān (p. 31) has reported this umbellifer from some places in Kohgīlūya, Boiraḥmad, Ḵūzestān, Kāzerūn, etc.

The šaqāqol. Historically, there has been much confusion in classical sources about this kind of wild *jazar*, too. The etymology of the name is also obscure. Along with *šaqāqol* (current in Iran) and the obsolete *šašqāqol*, the variants *ešqāqol, ḥašqīqāl, mašqīqāl* are reported by Ḥājī Zayn (pp. 26-27), *šaqāqel, šaqīqol* and *hašqīqol* by ʿAqīlī Ḵorāsānī (in 1183/1769-70; p. 549; *haštqāl* [?] in Anṭākī [I, p. 188] seems to be a misprint). The variant *hašfīfol* is also recorded

(e.g., in Heravī, p. 342; Tonokābonī, p. 869, s.v.; *Borhān-e qāṭeʿ*, IV, s.v.). According to Ebn al-Kotobī (in the *Mā lā yasaʿ al-ṭabīb jahlaho*, reported by Leclerc [in Ebn al-Bayṭār, Fr. tr., II, p. 339 n.], *šaqāqol* is a Nabatean word. Kāšānī (I, p. 208, s.v. *jazar*) reports (supposedly from Abū Rayḥān Bīrūnī) that the *jazar* and the *jazar-e daštī* are called *šaqāqol* in the Roman (*rūmī*; Byzantine Greek?) language (the reference is probably to the above-mentioned Greek *kaukālīs*). Meyerhof (Ebn Maymūn, p. 181, no. 361, n.), while mentioning Syriac *ḥašqīqalā*, surmises that all these forms of the name bespeak a Persian origin.

Some authors have equated the *ša*(*š*)*qāqol* just with (the root of) the wild *jazar*. For instance, Heravī has the following description (pp. 91-92, s.v. *jazar*): "The wild variety of the *jazar*, called *šašqāqol*, is more potent as an aphrodisiac, fattens the body, relieves the cough caused by dryness. It is hot in the third degree, and *narm* in the second. Its seeds, called *dawqū*, stimulate the sexual appetite, increase [the secretion of] the sperm, but cause gouṭ . . ." (curiously enough, Heravī has also a very short entry under *hašfīfel/hašqīqel* [p. 42], which the editor has equated with the *šaqāqol* [ibid., n.], but which has different properties: "It is hot and dry in the second degree, good for gout and articular pain"). Ebn Sīnā (loc. cit.) has this brief statement: "As to the *šaqāqol*, it is the wild *jazar* (if it be reckoned as a *jazar*); it is more aphrodisiac than the cultivated *jazar*, diuretic, emmenagogue; its seeds and root are good against *ʿosr al-ḥaml* "difficulty in pregnancy"(?). Kāšānī has this short remark (I, pp. 420-21, s.v. *šaqāqol*, supposedly translated from Bīrūnī): "The root of the wild *gazar* is called *šaqāqoḷ . . .* ; it is exported from Samarqand; it is called *kīr kākūl* [?] in Hindi . . ." (cf. ʿAqīlī Ḵorāsānī [pp. 549, 1008] who records *kākūl* as one of the several Hindi names for the *šaqāqol*. Ḥājī Zayn, equating *ešqāqol/šaqāqol* with the *jazar-e barrī* and *jazar-e eqlīṭī* (lit. "Celtic carrot"? pp. 102, etc.), and partly drawing on Dioscorides and Galen, says (pp. 26-27): "The best *ešqāqol* is the thick Egyptian variety, yellowish, and heavy . . . . It increases the milk of nursing women, and if used in a suppository/tampon it causes abortion. The application of its pounded leaves mixed with honey cleanses phagedenic sores." Elsewhere (p. 189, s.v. *dawqū*) he says: "The *šaqāqol* is the root of the wild *jazar*, which is called *ḵers-gīāh* (lit. "bear wort") . . . because the bear is very fond of it." Among lexicographers, the author of the *Borhān-e qāṭeʿ* (ed. Moʿīn, IV, s.v. *nahšal*) also considers the *šaqāqol* the same as the *nahšal* = *zardak-e ṣaḥrāʾī* (cf., however, Ebn Maymūn, Ar. text, p. 11, no. 73, s.v. *jazar*, and Tonokābonī, p. 855, s.v., who consider *nahšal* an Arabic name of the [wild] carrot; see also Meyerhof, in Ebn Maymūn, no. 73, pp. 39-40, n.).

Some authors of the Islamic period, however, have considered the *šaqāqol* to be a particular species of (wild) carrot. For instance, Ṭabarī, in addition to *jazar* preserve (see above), says elsewhere (p. 393) that "the preserves of the ginger and *šašqāqol* are hot, beneficial to the coldness of the stomach and the bladder, and increase the sperm." Aḵawaynī Boḵārī, too, refers to the *gazar* and the *šaqāqol* as the roots of two distinct plants (e.g., pp. 157, 357, 506, 509-10). Other authors differentiating between the two plants include Ebn Wāfed, Rāzī (both apud Ebn al-Bayṭār, II, pt. 3, pp. 65-66, s.v. *šaqāqol*), Jorjānī (pp. 599-600, s.v. *šašqāqol*), Anṭākī (I, p. 188, s.v. *šaqāqol*), Ebn Maymūn (Ar. text, p. 39, no. 361), and Tonokābonī (pp. 544-45). The latter's botanical description (p. 544) seems to reflect some personal information: "The *šaqāqol* is a knotty root, viscid, a little sweet, as thick as a finger, long. The stem of the plant is [also] knotty, with a leaf growing at each knot. Its fruit is the size of a chickpea, black, filled with a black liquid; its flower is larger than the violet. The plant usually grows under thick trees in humid places. The part used is the root, the power of which lasts up to four years."

P. Forskål (1775) has identified the *šaqāqol* growing in Egypt and Arabia as the umbelliferous *Eryngium campestre* L. (Renaud and Colin, in *Toḥfat al-aḥbāb*, p. 189, no. 445, n.). Dymock et al. (loc. cit.) have indicated *Trachydium lehmanni* Benth. & Hook. f. for the *shekákul* (*sic*) found in Indian *bāzārs* (see above), and Leclerc (Ebn al-Bayṭār, Fr. tr., II, p. 338) has used *Tordylium secacul* Miller for it (= *Malabaila secacul* subsp. *secacul* already mentioned).

Concerning *šaqāqol* preserve, in addition to its reputed aphrodisiac property, Aḵawaynī Boḵārī (p. 357) recommends *šaqāqol-e parvarda* as a cure for anorexia caused by dyscrasia due to "thick humors" in the stomach. Nowadays, the *morabbā-ye šaqāqol* (the only form in which the root is used), commercialized on a limited scale in Gīlān, is considered a palatable "hot" and (so far as men are concerned) aphrodisiac preserve (see the exclusive recipe in Ḵāvar, p. 219).

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