A Translation of the Nepalese Text of the *Suśrutasaṃhitā*

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Introduction

What follows is a draft translation of selected chapters of the *Compendium of Suśruta* (*Suśrutasaṃhitā*). This differs from former translations, being based on the text that survives in the oldest known manuscripts of the work.[1] These old manuscripts are located in Nepal, so we refer to this as "the Nepalese version" of the work, although future research may show that this old version was more widely known.[2]

The Nepalese Version

The Nepalese version has been reconstructed on the basis of three manuscripts from Kathmandu,

1. MS Kathmandu KL 699 (siglum K),
2. MS Kathmandu NAK 1-1079 (N), and
3. MS Kathmandu NAK 5-333 (H).

The first of these MSS is the oldest, dated to CE 878.[3] It covers most of the *Suśrutasaṃhitā*, but lacks the *Nidānasthāna* and the *Śārīrasthāna* (see Fig. 1). The second is undated but is datable on palaeographical grounds to the twelfth or thirteenth centuries.[4] It contains the *Sūtrasthāna* and *Nidānasthāna* but breaks off shortly afterwards. The third manuscript, H, is the most complete, supporting the text of the whole of the *Suśrutasaṃhitā*. It is dated CE 1513.[5] The text of manuscript H follows K very closely but

1 See Wujastyk et al. 2023 for an introduction to the Nepalese text and Wujastyk et al. 2021– for background on the Suśruta Project, 2021–2024.

2 For more discussion of this issue, see Wujastyk et al. 2023: Introduction and ch. 2.

3 Klebanov 2021*a*: 15.

4 Klebanov 2021*a*: 17–18.

5 I follow the arguments of Klebanov (2021*a*: 21–26) on the interpretation of the colophon although, as he pointed out, some interpret the date as CE 1573.

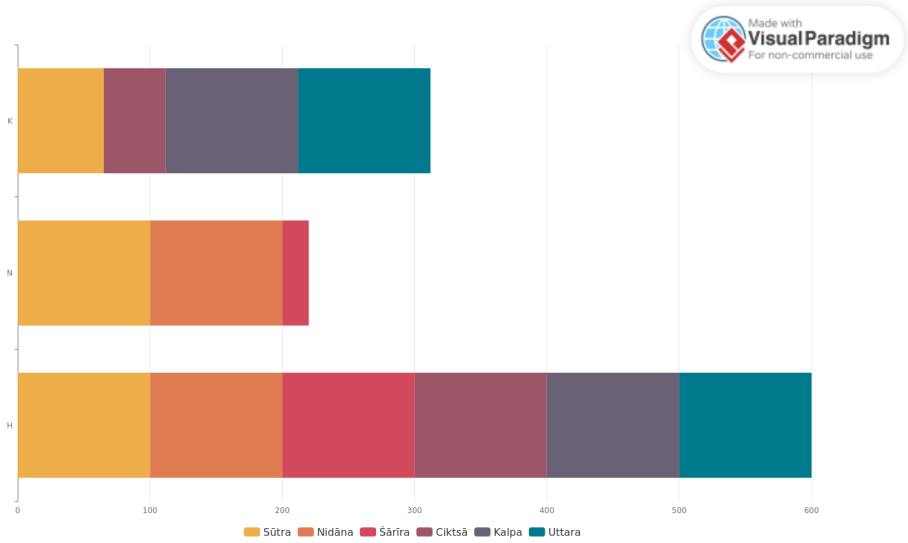

Figure 1: Coverage of the text by MSS K, N and H.

is probably not a direct apograph.[6] I conjecture that it was either copied from an intermediary that followed K very closely or from a ancestor of K.[7]

The vulgate

The version of the *Suśrutasaṃhitā* that we refer to as "the vulgate" is the version of the text that circulates in print today in multiple editions. The most careful and authoritative edition is that of Y. T. Ācārya and N. R. Ācārya (Su 1938).[8] It is telling that this edition includes the commentary of Ḍalhaṇa (b. ca. 1175) and, for the *Nidānasthāna*, also that of Gayadāsa (fl. ca. 1000). These important authors commented on a text that is, broadly

6 Chakraborty 2022.

7 "...as neither my own research ... nor the study undertaken in Harimoto ... could determine any linear connection between any of the Nepalese manuscripts of the SS, one may assume that [there exists] an older common ancestor of both of the manuscripts K and H." (Klebanov 2021*b*: 21).

8 This and the following issues have been discussed by Wujastyk et al. (2023: 2 and ch. 3).

speaking, what we call "the vulgate." But they both mentioned quite often that the manuscripts they were consulting contained other versions of the text and in a high number of cases, these variations match the Nepalese version.[9] It is possible that Gayadāsa and Ḍalhaṇa, through their commentarial work on the text, participated in shaping "the vulgate."

The scholar Rudolph Hoernle was also aware of this cleavage in the transmission-history of the *Suśrutasaṃhitā*. But with the more limited materials available to him at the turn of the twentieth century he drew the line a little differently. He referred to the text of the *Śārīrasthāna* of the *Suśrutasaṃhitā*, transmitted in the printed editions of his day, as "the Traditional Recension."

> The recension which is found in Jīvānanda's and all other prints,[10] and which, in the sequel, will be referred to as the Traditional Recension, has in its favour not only all available manuscripts, but also all ancient commentaries on the Compendium of Suśruta, ... Or, shortly, the Traditional Recension is supported by the whole body of existing witnesses.[11]

However, Hoernle was unfortunately not aware of the Nepalese manuscripts of the *Suśrutasaṃhitā*, which at the time he was writing were in Nepalese libraries that had not yet been explored by scholars of the time. The contrast that Hoernle was drawing was between the Traditional Recension and the *Śārīrasthāna* of the *Carakasaṃhitā* as printed by the influential Bengali scholar, Kavirāja Gaṅgādhara Ray (1798–1885).[12]

9 E.g., see the discussion in footnote **??** below.

10 Hoernle listed four, S. M. Gupta 1835–36; Su 1889; Govindjī et al. 1901; Vīrasvāmi n.d.

11 Hoernle 1907: 68.

12 Ray 1868–70. Hoernle's evaluation of this edition was not entirely kind: "I have not been able to discover for it any authority whatsoever. ... it is probably that the recension of Gangādhar is a reconstruction of his own to meet those of the difficulties which he had noticed" (Hoernle 1907: 70). For a full account of the genesis of this edition, see Pecchia 2022.

The Translation

The translation follows the methods of rigorous philological care and modern principles of translation theory.[13] Major differences in sense from the vulgate text are marked in this manner, but the differences are so pervasive and fine-grained that most have not been explicitly marked.

The text-historical state of the *Suśrutasaṃhitā* bears many resemblances to other early textual transmissions in South Asia. The situation was articulated particularly clearly for the case of Pāli by von Hinüber (1978), in the opening of his chapter,

> ...we cannot go back beyond the council of Aluvihāra (Ālokavihāra) under Vaṭṭagāmaṇī Abhaya (29–17 B.C.) where the Pāli canon ws written down for the first time in Ceylon. This is the very starting point of our tradition handed down to us by the monks of the Mahāvihāra. About recensions of the Pāli canon different from the Mahāvihāra tradition and deviating from its wording... we scarcely have any knowledge at all.

Similarly, the manuscript evidence for the *Suśrutasaṃhitā* that is available today allows us to reconstruct a version of the work after it was consolidated into a text of five parts with a sixth or "later" (*uttara*) and somewhat different part already appended to the first five. The prehistory of the work before this form is tantalizingly unknown to us. That the work was assembled from diverse sources and that many hands were involved is without doubt. The oldest surviving manuscript, MS Kathmandu KL 699, gives us physical evidence for the state of the text in the ninth century. We little insight into the formational processes affecting the text before that time. But what we can see plainly is that the text was edited pervasively after that time, being influenced especially by the commentators Jejjaṭa, Candraṭa, Gayadāsa and Cakrapāṇidatta and the editor Candraṭa. However, a clear picture of how these later editorial processes took place will only be possible as a result of further research into a wider manuscript base.

13 See Wujastyk 2003*b*: intro. and Wujastyk 2021: 81–83 for an overview.

Part 1. Sūtrasthāna

Part 2. Nidānasthāna

Part 3. Śārīrasthāna

Part 4. Cikitsāsthāna

Part 5. Kalpasthāna

Kalpasthāna 8: Poisonous insects

Introduction

This is the last chapter of the *Kalpasthāna*. Since the chapter-colophons of the Nepalese manuscripts commonly end with the statement, "here ends the *Suśrutasaṃhitā* together with the Uttaratantra," we can presume that an older version of the *Suśrutasaṃhitā*, sans Uttaratantra, ended with the present chapter. Added to this, the beginning of the next section of the work, the Uttaratantra, reads,

> It being declared in the preceding 120 chapters, from here on, in the latter section, I shall explain the meanings in detail, fully.[690] Now, I shall explain the treatise called "the latter" where diseases in their diversity are fully revealed.

It is often the case with evolving works that new chapters are added at the start or, especially, at the end of a work. This has been true since the *Ṛgveda*. The Kalpasthāna has a different character from the rest of the *Suśrutasaṃhitā*, for example eschewing theoretical considerations in many situations. It may therefore itself have once been an addition to an even earlier medical work consisting of four main divisions.

Insect names

It is more than usually difficult to equate the Sanskrit names of insects with contemporary creatures. This is partly, at least, because historical entomology is non-existent as a discipline. Furthermore, entomology as a science

690 Note that this is not the reading of the vulgate, which says that the Uttaratantra will explain everything that was *not* completely explained before.

in South Asia is dramatically undeveloped when compared, for example, with botany.[691] There are few general surveys of insects in India and virtually none that record historical names or literary references. In the twelfth century, Ḍalhaṇa made the following remark about the commentators who lived before his time:

> These different types of insects are not described by commentators like Suvīra, Nandin,Varāha, Jejjjaṭa and Gayadāsa, so they have to be identified from the people of different localities.[692]

Thus, even pre-modern Sanskrit authors were not expert regarding the identities of the insects discussed in the *Suśrutasaṃhitā*.[693]

In general the names listed in passages 5–14 are the least recognizable. Most seem never to appear elsewhere in Sanskrit literature or even elsewhere in the *Suśrutasaṃhitā*. The names mentioned from passages 25 onwards are mostly recognizable and do appear elsewhere Sanskrit literature.[694] This chapter therefore gives the appearance of having two distinct parts. First, there is a taxonomy arranged according to humoral characteristics, containing otherwise unknown insect names. Second follows a concatenated treatise with more recognizable ordinary-language nomenclature coupled with creature-by-creature nosology and therapy.

Literature

A brief survey of this chapter's contents and a detailed assessment of the existing research on it to 2002 was provided by Meulenbeld.[695]

The early history of entomology in India was fragmented until the study of Maxwell-Lefroy (1909) who provided a comprehensive and well illustrated reference compendium. Dover (1922) gave an overview of the early years of the field, though he admitted that, "I have not the linguistic

691 Desmond (1992) devoted a book of 368 pages to the early history of Indian botany; Dover (1922: 338–345) described the history of Indian entomology in seven pages.

692 Ḍalhaṇa on 5.8.4 (Su 1938: 586): एते कीटकभेदा नानादेशीयलोकादवगन्तव्याः, यतः सुवीरनन्दिवराहजेज्जटगयदासादिभिः टीकाकारैर्न व्याख्याताः. (Varāha is called Vārāha by Ḍalhaṇa on 2.13.3 (Su 1938: 318).) Cf. Meulenbeld (HIML: IA, 387–388) on Suvīra and *mutatis mutandis* on the other commentators

693 MW includes 191 insect names, almost none of which are identified.

694 E.g., Mitra 2005.

695 HIML: IA, 296–299.

attainments to discuss the mention of various insects in ancient Sanskrit works." Entomological studies focussed on south India include those of Baingrigge Fletcher (1914) and Ramakrishna Ayyar (1963). Meulenbeld (HIML: IB, 402) provided short bibliographies on Indian scorpions (note 214) and on spiders (note 222). Some insects were included by Ball (1888) in his study of the Indian flora and fauna known to classical Greek authors. Kaur and L. Singh (2018) provided a unique but very brief historical sketch of some arthropod references in Sanskrit literature.

Translation

1 And now I shall explain the procedure (*kalpa*) about insects.

Taxonomy of insects

3 Insects originate from snakes' semen, feces, urine, the rot of corpses, and eggs.[696] Their characters are traditionally divided into three: wind, fire, and water.

4 Yet others hold the opinion that they are connected with the characters of all of the humours. And those insects are also very fierce and all of them are divided into four groups.

5–6
1. Tick-navel ?,
2. Beaked,
3. Horned, and
4. Hundred-kulimbhakas,
5. Cricket (?),
6. Fiery,
7. Little-voice,
8. Vicitiṅgas, and
9. Lentil insects.
10. Āvarttaka-insect, and
11. Sheep-insect,
12. Myna-face, and
13. Legume-insect,
14. Hundred-creeper,
15. Stripy,
16. Spotted,
17. Speckle-head.[697]

7cd–8ab These eighteen insects, being of airy character, irritate the wind. The diseases of people bitten by one of these are caused by wind.

8cd–11ab
1. Pitcher-like,
2. Shining-like-grain,
3. Celestial, and
4. Warding off,
5. Leaf-scorpion,
6. Noseless,
7. Devout,
8. Droplet,
9. Bee,
10. Outsider.
11. Picciṭās,
12. Pot-turd,
13. Maggot (?),
14. Enemy-liquor,
15. Lotus-insect,
16. Drummer,
17. Mosquito,
18. Centipede,
19. Five-venom,
20. Cook-fish insect,

696 Sharma (1999–2001: 3, 78) omitted "snakes' " making it sound as if insects are just born of any semen, etc.

697 The list is deficient in the Nepalese version. The vulgate text has another half-verse here listing two more names, शतबाहु "hundred-arm" and रक्तराजि "red-stripe." It does not include the Nepalese version's अल्पवाच "little voice."

21. Black-beak,
22. She-ass insect.
These are the insects, as well as the
23. Worm-dish,
and the other one that is known as the
24. Slimy.

5.8.11cd These are the twenty-four insects that have the character of fire.

Symptoms

17cd–24 xx

Taxonomy according to symptoms and prognosis

25–27 xx
28 iguana
29 [698]
30–41 xx

Therapies

42–56abcd xx

Taxonomy of scorpions

56ef–66 xx

Therapies for scorpion-sting

67–74 xx

Symptoms of spider poisoning

75–89 xx

Origin story for spiders

90–93 xx

698 See n. 210, p. 82.

Figure 4: Husain, Shaykh, Shaykh Ali and Shaykh Hatim, "Asavari Ragini: Cropped Image of Scorpions" (Husain et al. 1591). Courtesy of the Smithsonian Institution.

Taxonomy of spiders

94–100ab xx

Specific symptoms and treatment for spider poisoning

100cd–120 XX

Untreatable spider poisons

121–127 xx

Curable and incurable

128–129 xx

Therapies for spider poisoning

130–134 xx

General therapies for poisoning

135–139 xx

End of the Suśrutasaṃhitā

140–143 xx

Part 6. Uttaratantra

Editions and Abbreviations

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Index of Manuscripts

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Kathmandu KL 699: 11, 14
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Abbreviations

ADPS	Sivarajan, V. V., and Balachandran, Indira (1994), *Ayurvedic Drugs and Their Plant Sources* (New Delhi, Bombay, Calcutta: Oxford & IBH Publishing).
AVS	Warrier, P. K., Nambiar, V. P. K., and Ramankutty, C. (1994–96) (eds.), *Indian Medicinal Plants: A Compendium of 500 Species. Vaidyaratnam P. S. Varier's Arya Vaidya Sala, Kottakal* (Madras: Orient Longman).
BIA	Prater, S. H. (1993), *The Book of Indian Animals* (3rd edn., Bombay, Delhi, etc.: Oxford University Press), ARK; 4th impression of 3rd corrected 1980 edition.
Chevillard	Chevallier, Andrew (2000), *The Encyclopedia of Herbal Medicine*, ed. Penny Warren et al. (1st edn., New York: Dorling Kindersley), ISBN: 9780751303148, ARK.
Chopra	Chopra, R. N., Nayar, S. L., and Chopra, I. C. (1956), *Glossary of Indian Medicinal Plants* (3rd reprint, 1992, New Delhi: Council of Scientific and Industrial Research); vol. 2: R. N. Chopra, I. C. Chopra, and Varma (Chopra$_{sup}$).
Chopra IDG	Chopra, R. N., Chopra, I. C., Handa, K. L., et al. (1958), *Chopra's Indigenous Drugs of India* (2nd edn., Calcutta: Dhur & Sons), ARK.
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GVDB — Singh, Thakur Balwant, and Chunekar, K. C. (1972), *Glossary of Vegetable Drugs in Brhattrayī* (Varanasi: Chowkhamba Sanskrit Series Office), ARK.

HK — Hilgenberg, Luise, and Kirfel, Willibald (1941), *Vāgbhaṭa's Aṣṭāṅgahṛdayasaṃhitā, ein altindisches Lehrbuch der Heilkunde, aus dem Sanskrit ins Deutsche übertragen mit Einleitung, Anmerkungen und Indices* (Leiden: Brill), ARK.

IGP — Griffiths, Mark (1994), *The New Royal Horticultural Society Index of Garden Plants* (London: Macmillan), ARK.

IHR — Khare, C. P. (2004), *Indian Herbal Remedies: Rational Western Therapy, Ayurvedic and Other Traditional Usage, Botany* (Berlin and Heidelberg: Springer), ISBN: 978-3-642-62229-8. DOI, ARK.

Issar — Issar, T. P. (1994), *Blossoms of Bangalore* (Bangalore: T. P. Issar).

IW — Israel, Samuel, et al. (1988), *Indian Wildlife: Sri Lanka Nepal* (Insight Guides; Singapore etc.: APA Publications), ISBN: 9780245545238, ARK.

K & B — Kirtikar, K. R., Basu, B. D., and an I.C.S (1987), *Indian Medicinal Plants*, ed. E. Blatter, J. F. Caius, and K. S. Mhaskar, 8 vols. (2nd edn., Dehradun: International Book Distributors); First published in Allahabad, 1918.

MBG — Missouri Botanical Garden (2024), "Missouri Botanical Garden: Plant Finder," Missouri Botanical Garden, URL.

NEH — Bown, Deni (2001), *New Encyclopedia of Herbs and Their Uses* (2nd edn., London, New York etc: .Dorling Kindersly).

NK — Nadkarni, K. M. (1982), *Dr. K. M. Nadkarni's Indian Materia Medica, with Ayurvedic, Unani-tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home Remedies, Appendices & Indexes ... in Two Volumes*, ed. A. K. Nadkarni, 2 vols. (3 ed., revised and enlarged by A. K. Nadkarni, Bombay: Popular Prakashan), ISBN: 8171541429, URL; First published in 1954.

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POWO — Kew Gardens (2024), "Plants of the World," Royal Botanic Gardens, URL.

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Watt$_{Comm}$ Watt, George (1908), *The Commercial Products of India, Being an Abridgement of "the Dictionary of the Economic Products of India"* (London: John Murray), ARK.

Flora

aconite leaf (?) (*viṣapatrikā*) Unknown. Cf. perhaps, Indian aconite (*viṣā*) (but that is feminine). Cf. GVDB: 373, "unidentified" : 139

agarwood (*aguru*) Aquilaria malaccensis Lam., GVDB: 3 : 98, 99, 200

'alas, alas' (?) (*hālāhala*) unknown. See Cf. *Soḍhalanighantu* p.43 (sub *bola*) = *stomaka* = Indian aconite (*vatsanābha*) : 140, 142

Alexandrian laurel (*punnāga*) Calophyllum inophyllum, L. See AVS: 1, 338, NK: 1, #425 : 181, 200

amaranth (*taṇḍulīya*) see amaranth (*taṇḍulīyaka*) : 182

amaranth (*taṇḍulīyaka*) Amaranthus spinosus L. See GVDB: 174, Dutt: 321, NK: 1, #144, Potter$_{rev}$: 15. Cf. AVS: 1, 121. Amaranth (etym. amṛta!) is a large family, many originally endemic to S. America. A. hypochondriacus L. is sometimes identified with *taṇḍulīyaka*, but A. spinosus L. is better known and attested in S. Asia in the first millennium BCE (Saraswat 1991) : 131, 189, 193, 198, 292

Arabian jasmin (*tṛṇaśūnya*) see Arabian jasmine (*mallikā*), GVDB: 190 MW: 453 says Jasminium sambac. GVDB: 190 also suggest screwpine (*ketaka*) : 292

Arabian jasmine (*mallikā*) Jasminum sambac (L.) Aiton, GVDB: 300 : 292

Arabian jasmine (*tṛṇaśūlya*) probably an alternative pronunciation for Arabian jasmin (*tṛṇaśūnya*), GVDB: 190 : 200

arjun (*arjuna*) Terminalia arjuna, Bedd. See HK: 738 : 44, 78, 197

Asoka tree (*aśoka*) Saraca indica Linn., GVDB: 26 : 99, 101, 182, 200, 214, 308

atis root (*śṛṅgīviṣa*) Aconitum heterophyllum, Wall. ex Royle. See AVS: 1, 42, NK: 1, #39 : 140, 142

axlewood (*dhava*) Anogeissus latifolia (Roxb. ex DC.) Wall. ex Guill & Perr. See AVS: 1, 163 f, Chopra: 20 : 44, 77, 152, 197, 200

bamboo leaves (*veṇupatrikā*) Bambusa bambos, Druce. See NK: 1, #307 : 131

banyan (*nyagrodha*) Ficus benghalensis, L., GVDB: 356, HK: 748 : 292

banyan (*vaṭa*) see banyan (*nyagrodha*) : 78, 81

barley (*yava*) Hordeum vulgare, L. See HK: 752 : 109

barley ash (*yavakṣāra*) The preparation method is described at GVDB: 327 : 112, 292

barley ash (*yavanāla*) see barley ash (*yavakṣāra*), GVDB: 327 : 190

bayberry (*kaṭphala*) M. esculenta Buch.-Ham. ex D.Don, which is is native to the Himalaya, from Kashmir to Assam, as well as S. China and SE Asia. Nageia nagi (Thunb.) Kuntze (syn of Myrica nagi Thunb.), as suggested by T. B. Singh and Chunekar (GVDB: 66), is native to East Asia, not India : 182

bearded premna (*vasuka*) Premna barbata Wall. (← *vasuhaṭṭa*), according to Cakrapāṇidatta. See the discussion by T. B. Singh and Chunekar (GVDB: 362–363), where other candidate species such as Osmanthus,

Calotropis, and Trianthema are discussed. T. B. Singh and Chunekar (GVDB: 363) note that when *vasuka* is mentioned with *vasira*, two varieties of salt are often meant (see *vasukavasirā*). See also NK: #1299 who identifies it with Indigofera enneaphylla, Linn. (Birdsville Indigo), apparently without controversy : 78

beautyberry (*śyāmā*) Callicarpa macrophylla, Vahl. See AVS: 1, 334, NK: 1, #420 : 104, 129, 131, 183

beggarweed (*aṃśumatī*) see beggarweed (*śālaparṇī*), GVDB: 1, mentioning that the pair of these refers to beggarweed and ?? : 147, 192

beggarweed (*sthirā*) see beggarweed (*śālaparṇī*), GVDB: 458 : 192

beggarweed (*vidārigandhā*) see beggarweed (*śālaparṇī*) : 53, 109, 303

beggarweed (*śālaparṇī*) Desmodium gangeticum (L.) DC. See Dymock: 1, 428, GJM1: 602, NK: 1, #1192; ADPS: 382, 414 and AVS: 2, 319, 4.366 are confusing : 293

beleric myrobalan (*bibhītaka*) Terminalia bellirica Roxb. One of the components of the three myrobalans (*triphalā*) GVDB: 274, 196 : 311

Bengal quince (*bilva*) Aegle marmelos (L.) Corr. See AVS: 1, 62, Chevillard: 161, NK: 1, #62, i(MW: 732a) : 77, 99, 101, 106, 183, 293, 298, 310

big poison (?) (*mahāviṣa*) unknown. : 140, 142

big thorn apple (?) (*mahākarambha*) Perhaps Datura metel, L.?. See thorn apple (*karambha*) : 139

bitter gourd (*paṭolī*) see pointed gourd (*paṭola*), cite[233]gvdb : 182

bitumen (*adrija*) → *śilājit*. A tar-like, black, resinous rock exudate. See *Mahākośa*: 1, 21 : 163

black Bengal quince (*kṛṣṇaśrīphalikā*) GVDB: 412, on *śrīphala*, synonym of Bengal quince (*bilva*) fruit : 299

black creeper (*kālānusārī*) Ichnocarpus frutescens R. Br. or Cryptolepis buchanani Roemer & Schultes. Probably a synonym for *kṛṣṇasārivā* (GVDB: 94–95). I. frutescens has dark, rust-colored stems, so has been preferred here. However, Cryptolepis grandiflora, Wight, also has black stems. Synonym of *kālānusāriṇī*, *kālānusārivā*. *kālanusārya* may be a synonym of *tagara*, itself hard to identify : 181, 293

black creeper (*pālindī*) Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes. See AVS: 3, 141, 145, 203, NK: 1, #1283, 1210, ADPS: 434. Ḍalhaṇa on SS 5.1.82 identified *pālindī* with *trivṛt* (turpeth) and T. B. Singh and Chunekar (GVDB: 246) supported this as a usual identification : 131, 134, 147, 182

black nightshade (*kākamācī*) Solanum nigrum, Linn., GVDB: 86–87. May also be the less poisonous S. dulcamara, "bittersweet nightshade," K & B: 1, 889–892 : 192, 199, 296

black pepper (*marica*) Piper nigrum, L. See ADPS: 294, NK: 1, #1929. Known to ancient Greek authors (Ball 1888: 341) : 110, 198, 214, 298, 311

black sarsaparilla (*kālānusārivā*) see Indian sarsaparilla (*sārivā*); see also black creeper (*kālānusārī*). Problems about identifying this plant are discussed at GVDB: 94–95 and GVDB: 429–431 : 200

blackboard tree (*saptachada*) Alstonia scholaris R. Br. GVDB: 420 : 130, 293

blackboard tree (*saptaparṇa*) see blackboard tree (*saptachada*) : 198

blackbuck (*hariṇa*) Antilope cervicapra, L. See BIA: 270 IW: 95, 165, *et passim* : 134

blue water-lily (*utpala*) Nymphaea stellata, Willd. See GJM1: 528, IGP 790; Dutt: 110, NK: 1, #1726 : 35, 129, 147,

200, 214, 215, 297
bluebell barleria (*kuravaka*) see bluebell barleria (*kuruvaka*) : 183
bluebell barleria (*kuruvaka*) Or *kurubaka*. T. B. Singh and Chunekar (GVDB: 108) notes that this is sometimes listed as a type of rice, as at *Suśrutasaṃhitā* 1.46.8 (Su 1938: 215). Further discussion at GVDB: 447–448, sub bluebell barleria (*saireyaka*), where *kurubaka* is said to be identifiable with *baka* and *būka*. T. B. Singh and Chunekar (GVDB) finally propose a red-flowering Rhododendron, admitting that this is a novel suggestion : 139, 294
bluebell barleria (*sahā*) see bluebell barleria (*sahācara*), GVDB: 428 : 108, 191
bluebell barleria (*sahācara*) see bluebell barleria (*saireyaka*), GVDB: 427 : 294
bluebell barleria (*saireyaka*) A Barleria, perhaps B. cristata L. that is particularly well-known in South India. Four kinds are distinguished in ayurveda, based on the colour of their flowers. See substantive discussion at GVDB: 444–449 : 294
bread flower (*āsphota*) GVDB: 41 argue for Vallaris solanacea (Roth ex Roem. & Schult.) Kuntze. This has the right distribution in S. Asia POWO: s.v. : 193
bull's head (*gokṣura*) Tribulus terrestris L. GVDB: 144–145, 193. A component of lesser five roots : 294
bull's head (*trikaṇṭaka*) → bull's head (*gokṣura*) GVDB: 193. A component of lesser five roots : 303
bulrush (*kaśeru*) "Two species, Scirpus kysoor Roxb., and S. grossus Linn. f., are used" GVDB: 85. Also *kaśeruka* and *kaseru* : 104, 105, 108
calabash gourd (*kūṣmāṇḍa*) → puṣpaphala. Beninkasa hispida, (Thunb.) Cogn. See AVS: 2, 1127; cf. AVS: 1, 261 : 298
camphor (*karpūra*) → *śītaśiva*. Cinnamomum camphora, (L.) Sieb. See IGP 253 : 294
camphor (*śītaśiva*) rarely mentioned. Taken as rock salt (*saindhava*) or shami tree (*śamī*), etc., by some authors, GVDB: 402. Ḍalhaṇa on 5.6.18 (Su 1938: 581) glossed it as camphor (*karpūra*), but noticed other interpretations : 200
cardamom (*elā*) Elettaria cardamomum, Maton. See AVS: 2, 360, NK: 1, #924, Potter$_{rev}$: 66 : 98, 99, 147, 153, 181, 182, 190, 200, 294
cardamom (*kṣudrailā*) see cardamom (*elā*), GVDB: 128. This expression, "small cardamom" is only used at *Suśrutasaṃhitā* Kalpasthāna 6.17 : 200
carray cheddie (*viśvadevā*) → *gāṅgerukī* Canthium parviflorum, Lam. See AVS: 1, 366 f. Or Sida rhombifolia Linn. (GVDB: 372, 444 ff. et passim) : 81
castor oil tree (*gandharvahasta*) see castor-oil (*eraṇḍa*). GVDB: 135, K & B: 3, 2277 : 49, 101
castor-oil (*eraṇḍa*) Ricinus communis, L. See NK: 1, #2145, Chopra: 214 : 54, 294
castor-oil tree (*vardhamāna*) see castor-oil (*eraṇḍa*), GVDB: 361 : 198
catechu (*khadira*) Senegalia catechu (L.f.) P. J. Hurter & Mabb = Acacia catechu Willd. GVDB: 129–130 : 78
certain minerals (*tārāvitāra*) Unknown. It is not even certain that these are minerals. The variant reading in the vulgate, *tāraḥ sutāraḥ* was glossed by Ḍalhaṇa on 5.3.14 (Su 1938: 568) as follows *tāro rūpyaṃ, sutāraḥ pāradaḥ*, "tāra means silver; sutāra means mercury." : 152
chaff (*kāṇḍana*) The word *kāṇḍana* is not found in dictionaries; *kaṇḍana* is threshing, separating the chaff from the grain in a mortar. Cf. Hemādri's *Caturvargacintāmaṇi* (PWK: 2, 8) (Śiromaṇi 1873: 1, 138: 21, citing the *Vāyupurāṇa*) : 37, 309
champak (*campaka*) Magnolia champaca

(L.) Baill. ex Pierre, GVDB: 154 : 200
chebulic myrobalan (*harītakī*) Terminalia chebula Retz. GVDB: 466 : 107, 130, 200, 311
cherry (*elavālu*) Prunus cerasus, L. See GVDB: 58 for a thoughtful discussion NK: 1, #2037. : 147, 200, 295
cherry (*elavāluka*) see cherry (*elavālu*) : 198
chir pine (*sarala*) Pinus roxburghii, Sarg. GVDB: 423 : 77, 108, 198, 200
cinnamon (*tvac*) Cinnamomum cassia, Blume. See NK: 1, #579 : 192, 200, 295
cinnamon (*tvak*) see cinnamon (*tvac*) : 182
cinnamon (*varāṅga*) see cinnamon (*tvac*), GVDB: 360 : 198
citron (*mātuluṅga*) Citrus medica, Linn. GVDB: 276, 306. Also spelled *mātuliṅga, mātulaṅga, mātulāṅga* : 77, 106, 111, 112, 182
cluster fig (*udumbara*) Ficus racemosa, L. See ADPS: 487 : 197
cobra's saffron (*nāgapuṣpa*) → nāgakeśara. Mesua ferrea, L. See NK: 1, #1595, GVDB: 220 : 147
colocynth (*indravāruṇī*) Citrullus colocynthis (L.) Schrad., GVDB: 46. The two varieties of this plant are discussed by (ADPS: 180–183); the first is agreed to be colocynth, the second is debated but is likely to be a Curcubitaceae : 198, 200, 295
colocynth (*mṛgādanī*) see colocynth (*indravāruṇī*) GVDB: 46, 318 : 182
common smilax (*śvadaṃṣtra*) Smilax aspera L., GVDB: 414 : 77
convolvulus (*lakṣmaṇā*) Sivarajan and Balachandran (ADPS: 273–275) suggest Ipomoea marginata (Desr.) Verdc. or I. obscura (Linn.) AVS: 3, 237–238 suggests Ipomoea sepiaria Roxb. (looks like a little boy (*putraka*), and generates a boy (*putrajananī*), according to the *Bhāvaprakāśa*). Sivarajan and Balachandran (ADPS: 273–275) firmly reject Mandragora officinalis which is European; but possible consideration could be given to Mandragora caulescens C.B.Clarke, a variant that is known in South Asia. Cf. GVDB: 346–347. NK: #1546, #2323 suggests Mandragora officinalum, Linn., known as *putrada* : 81
coriander (*dhānyaka*) Coriandrum sativum L., GVDB: 213 : 295
coriander (*kustumburya*) see coriander (*dhānyaka*), GVDB: 113 : 200
corky coral tree (*pāribhadra*) Erythrina suberosa Roxb. See GVDB: 245 : 152, 295
corky coral tree (*pāribhadraka*) see corky coral tree (*pāribhadra*) : 101, 197
costus (*kuṣṭha*) Dolomiaea costus (Falc.) Kasana & A. K. Pandey. See GVDB: 112, NK: 1, #2239. Known to ancient Greek authors (Ball 1888: 345) : 98, 99, 106, 131, 147, 153, 181, 182, 190, 198, 200
cottony jujube (*kākolī*) Ziziphus mauritanica, Lam. See IGP: 1233, NK: 1, #2663; IGP 1233. Cf. NK: 1, #1170 : 97, 105, 106, 178
country mallow (*atibalā*) Abutilon indicum, (L.) Sweet, but may be other kinds of mallow, e.g., Sida rhombifolia, L.. See NK: 1, #11, IGP: 1080, NK: 1, #2300, ADPS: 71, 77 : 53, 105, 108, 274
country mallow (*sahadevā*) → *balā* (GVDB: 428). Contains ephedrine : 81, 108
country sarsaparilla (*anantā*) Hemidesmus indicus, (L.) R. Br. See ADPS: 434, AVS: 3, 141–145, NK: 1, #1210. But see GVDB: 13 for complications that may suggest that it is to be equated with *sārivā*, which may sometimes be Cryptolepis or Ichnocarpus fruitescens R. Rr. (GVDB: 429-431) : 53, 139, 147, 152
crape jasmine (*tagara*) Tabernaæmontana divaricata (L.) R.Br. ex Roem. & Schultes. See GJM1: 557, AVS: 5, 232.

Synonym of *nata*. But some say Valeriana jatamansi, Jones. See GVDB: 173–174 for discussion (and charming comments on brain-liquid testing). Some say *tagara* is Indian rose-bay or Indian valerian or a Nymphoides (see water snowflake (?) (*kumudavatī*)), but there remain many historical questions about the ancient and regional identities of this plant See, e.g., AVS: 5, 334, 345. See also IGP: 1147, K & B: 1, 796, #758 : 98, 99, 106, 131, 147, 181, 200, 299, 313

crimson trumpet-flower tree (*pāṭalā*) Stereospermum chelonides, (L. f.) A. DC. See GJM1: 573, AVS: 5, 192 ff, ADPS: 362 f, AVS: 3, 1848 f, IGP 1120, Dymock: 3, 20 ff : 298, 313

croton tree (*nāgadantī*) Croton persimilis Müll.Arg., GVDB: 222 : 198, 296, 308

croton tree (*nāgavinnā*) Croton persimilis Müll.Arg. GVDB: 222 I have taken this as croton tree (*nāgadantī*) because of context in *Suśrutasaṃhitā* Kalpasthāna 5 : 183

crow (?) (*kāka2*) an unidentified poisonous plant apparently called "crow." T. B. Singh and Chunekar (GVDB: 86) note that several drugs named after the crow are unidentifiable. Black nightshade, (*kākamācī*) is toxic, but this is a stretch : 139

datura (*dhattūra*) Datura metel, L. See AVS: 2, 305 (cf. *Abhidhānamañjarī*), NK: 1, #796 ff. Potter$_{rev}$: 292 f, ADPS: 132 : 50, 296

datura (*dhuttūrakā*) see datura (*dhattūra*) : 194

deodar (*bhadradāru*) Cedrus deodara, (Roxb.ex D.Don) G. Don. See AVS 41, NK: 1, #516 : 44, 105, 109, 147, 198

deodar (*devadāru*) Cedrus deodara (Roxb.) Loud. GVDB: 206–207 : 77, 106, 200, 274, 296

deodar (*suradāru*) see deodar (*devadāru*) : 181

devil's dung (*hiṅgu*) Ferula foetida Regel., GVDB: 471–472 : 78, 79, 181

dried ginger (*nāgara*) → dried ginger (*śuṇṭhī*) GVDB: 221–222 : 79, 181

dried ginger (*śuṇṭhī*) Zingiber officinale, Roscoe. See ADPS: 50, NK: 1, #2658, AVS: 5, 435, IGP: 1232 : 104, 296, 311

dried meat (*vallūra*) MW: 929, *Mahākośa*: 1, 730. The term is used, rarely, in both the CS (1.5.10) and SS (1.13. 16, 6.42.75–76). It is a Dravidian loanword and occurs in the *Arthaśāstra* etc. (KEWA: 3, 167) : 36

drum-giver (?) (*lambaradā*) Unknown; cf. GVDB: 348 : 139

elixir salve (*rasāñjana*) cf. Indian barberry (*añjana*) : 44, 54, 300

embelia (*viḍaṅga*) Embelia ribes, Burm. f. See ADPS: 507, AVS: 2, 368, NK: 1, #929, Potter$_{rev}$: 113 : 44, 77, 99, 147, 181, 182, 198

emblic myrobalan (*āmalaka*) Phyllanthus emblica, L. See AVS: 4, 256 : 78, 107, 108, 214, 311

emetic nut (*karaghāṭa*) Probably a synonym for *karahāṭa* (emetic nut), q.v., GVDB: 74 : 296

emetic nut (*karaghāṭaka*) see emetic nut (*karaghāṭa*) : 140, 197

emetic nut (*karahāṭa*) Randia dumetorum, Lamk. See GVDB: 291–292 and NK: 1, #2091. T. B. Singh and Chunekar (GVDB: 74, 77–78) noted that it may be a synonym for *karaghāṭa*, emetic nut, and pointed rather to Gardenia turgida Roxb. on the basis of local knowledge in U. P. : 296

emetic nut (?) (*karaṭā*) Not in GVDB. Cf. perhaps *karahāṭa* (emetic nut) : 138

emetic nut (*madana*) Randia dumetorum, Lamk. See NK: 1, #2091 : 130, 276

false daisy (*bhṛṅga*) Eclipta prostrata (L.) L. See GVDB: 288 : 77

false daisy (*subhaṅgurā*) (su)bhaṅgura =

bhṛṅga? Eclipta prostrata (L.) L. See GVDB: 288 : 138

fermented rice-water (*dhānyāmla*) → *kāñjī, kāñjikā, sauvīra*. GVDB: 458, NK: 2, appendix VI, #18 : 51, 52

fern (*ajaruhā*) Nephrodium species GVDB: 7, uncertain. Perhbaps Christella dentata(Forssk.) Brownsey & Jermy, which is reported to have folk applications against skin diseases in India : 133

fire-flame bush (*dhātakī*) Woodfordia fruticosa (L.) Kurz. See AVS: 5, 412, NK: 1, #2626. Known to ancient Greek authors (Ball 1888: 344) : 78, 130

five roots (*pañcamūla*) Described at *Suśrutasaṃhitā* 1.38.66–69 (Su 1938: 169). There are two *pañcamūla*s, the *laghupañcamūla* (the lesser five roots) and *bṛhatpañcamūla* (greater five roots), with differing properties. Combined they are called *daśamūla* (ten roots). See also *Mahākośa*: 1, 468 : 77

flame-of-the-forest (*kiṃśuka*) see flame-of-the-forest (*palāśa*), GVDB: 97–98 : 190

flame-of-the-forest (*palāśa*) Butea monosperma (Lam.) Taub. GVDB: 241. *pālāśa* in some sources : 78, 101, 297

flax (*atasī*) Linum usitatissimum, L. See NK#1495 : 105

foxtail millet (*priyaṅgu*) also *śyāmā*. Setaria italica (L.) P. Beauvois GVDB: 263–264, GJM1: 576. The most widely-grown species of millet in Asia. Some say Callicarpa macrophylla, Vahl. See AVS: 1, 334, NK: 1, #420. The fruits of S. italica and C. macroyphylla are similar. See also GVDB: 413, where the authors suggest that *priyaṅgu* is meant by *gondī* or *gondanī* and may have originally been called *gundrabīja* : 44, 147, 153, 181, 182, 214, 297

foxtail millet (*priyaṅgū*) see foxtail millet (*priyaṅgu*) : 200

fragrant lotus (*saugandhika*) A type of white water-lily (*kumuda*) or blue water-lily (*utpala*), GVDB: 457 : 35

fruit of the marking-nut (*āruṣkara*) see marking-nut tree (*aruṣkara*). "āruṣkara = aruṣkara phala" ADPS: 23; see also MW: 151 : 182

gajpipul (*gajapippalī*) GVDB: 469, 132, syn. *hastipippalī*. A controversial plant, but the conjecture of T. B. Singh and Chunekar that Scindapsus officinalis (Roxb.) Schott is the more ancient identity is accepted here : 297, 316

gajpipul (*hastipippalī*) see gajpipul (*gajapippalī*), GVDB: 469, 132 : 198

galangal (*galaṅgala*) Alpinia galanga (L.) Sw. Identified with grey orchid in Kerala (ADPS: 398). The name is borrowed from Chinese, perhaps via Persian or Arabic (Peter: 2, 304), and the name does not occur in early āyurvedic literature (GVDB) : 298

galls (?) (*karkaṭa*) almost impossible to identify with certainty, GVDB: 78–80. Perhaps Rhus succedanea, L. See NK: 1, #2136 : 140

garjan oil tree (*aśvakarṇa*) Dipterocarpus turbinatus Gaertn. f. See GVDB: 28, Chopra: 100 : 152, 197, 200

giant potato (*kṣīravidārī*) possibly → *kṣīraśukla*. Ipmoea mauritiana, Jacq. See ADPS: 510, AVS: 3, 222, AVS: 3, 1717 ff : 105, 301, 305, 306, 308

ginger (*mahauṣadha*) Zingiber officinale, Roscoe. See ADPS: 50, NK: 1, #2658, IGP: 1232 : 134

gold (*hema*) gold : 147

gold and sarsaparilla (*surendragopa*) Unknown. Ḍalhaṇa on 5.3.15 (Su 1938: 568) glossed *surendra* as "gold" and *gopā* as "Indian sarsaparilla." He also noted other opinions that *surendra* was "Tellicherry bark" : 153

golden shower tree (*rājadruma*) see golden shower tree (*āragvadha*) : 152
golden shower tree (*rājavṛkṣa*) see golden shower tree (*āragvadha*) : 77
golden shower tree (*āragvadha*) Cassia fistula L. GVDB: 37–38, ADPS: 48, AVS: 2, 11 ff, AVS: 2, 854, IGP: 215. Known to ancient Greek authors (Ball 1888: 343). The plant has many synonyms : 107, 180, 190, 192, 298
gourd (*alābu*) Lagenaria siceraria Standl. GVDB: 25. Some say Lagenaria vulgaris, Seringe (NK: 1, #1419) but this is not appropriate for blood-letting : 31, 32, 130, 178
gourd (*vallija*) see gourd (*vallīja*) : 140
gourd (*vallīja*) This is a guess. According to some lexical sources, syn. for black pepper (*marica*) (MW: 929). See NK: 1, #1929. T. B. Singh and Chunekar (GVDB: 362) note that *vallĭphala* may be calabash gourd (*kūṣmāṇḍa*), which I follow. The related spiny bitter gourd has poisonous seeds, but not flowers. Commenting on *Bṛhatsaṃhitā* 8.13ab and 16.24ab, Bhaṭṭotpala glossed it as *mudgādi*, "mung beans etc." : 298
grapes (*drākṣā*) Vitis vinifera L. GVDB: 208–209 : 182
greater five roots (*bṛhatpañcamūla*) Described at *Suśrutasaṃhitā* 1.38.68–69 (Su 1938: 169). Consists of Bengal quince, migraine tree, Indian trumpet tree, crimson trumpet-flower tree, and white teak : 297, 302, 311
green gram (*māṣa*) Vigna radiata (L.) R. Wilcz. See ADPS: 296, IGP 1204 : 44, 105, 275
grey orchid (*rāsnā*) Vanda tessellata (Roxb.) Hook. ex G.Don, usually. But Pluchea lanceolata, Oliver & Hiern, is a more common identification in Punjab and Gujarat (GVDB: 337–338); Alpinia galanga (L.) Sw. is more common in Kerala (ADPS: 398; Peter: 2, 303–318), though this is usually identified with galangal. As all authorities note, the identification of this plant is debated. Sivarajan and Balachandran (ADPS: 398–401) note that sources describe it as having leaves like cardamom and sweet-smelling roots and that "there is great confusion with regard to the identity of the drug." : 77, 104, 106, 181, 297
gummy gardenia (*pṛthvīkā*) ← *hiṅgupatrikā*, Gardenia gummifera L.f., GVDB: 257, q.v. for discussion : 182, 200
hairy bergenia (*pāṣāṇabheda*) Bergenia ligulata (Wall.) Engl. GVDB: 246–247 : 78
hairy-fruited eggplant (*bṛhatī*) Solanum lasiocarpum Dunal. (syn. S. ferox, L. & S. indicum L.), GVDB: 277–278, who discuss the two kinds of *bṛhatī*, which may be large and small eggplants (Solanum melongena L.). See also ADPS: 100, NK: 1, #2329, AVS: 5, 151, IHR: 429–430 : 101, 107, 146, 147, 190, 192, 303
halfa grass (*darbha*) Demostachya bipinnata Stapf. GVDB: 201. Synonym of *kuśa* : 80, 105
halfa grass (*kuśa*) Desmostachya bipinnata, (L.) Stapf. GVDB: 111, AVS: 2, 326 : 105, 175, 198
hare foot uraria (*kroṣṭakamekhalā*) see hare foot uraria (*pṛśniparṇī*) *Mahākośa*: 1, 246. *kroṣṭaka* can mean "jackal" *śṛgāla*, as in *śṛgālavinna*, "a kind of *pṛśnaparṇī*) *Mahākośa*: 1, 839 : 182
hare foot uraria (*pṛthakparṇī*) → hare foot uraria (*pṛśniparṇī*) and rajmahal hemp (*mūrvā*) GVDB: 257. A component of lesser five roots : 107, 303
hare foot uraria (*pṛśniparṇī*) → *sahā*? Uraria lagopoides, DC. and U. picta Desv. See GVDB: 257–258, GJM1: 577, Dymock: 1, 426, AVS: 1, 750 ff, NK: 1, #2542; ADPS: 382, AVS: 2, 319 and

AVS: 4, 366 are confusing. Also called *pṛthakparṇī*. A component of lesser five roots : 104, 105, 298
heart-leaf sida (*balā*) Sida cordifolia, Linn. See ADPS: 71, NK: 1, #2297 : 53, 105, 108, 110, 147, 274
heart-leaved moonseed (*amṛtā*) → *guḍūcī*. Tinospora cordifolia, (Willd.) Hook.f. & Thoms.? See ADPS: 38, NK: 1, #2472, 624, Dastur #229 : 131, 146, 192
heart-leaved moonseed (*guḍūcī*) Tinospora cordifolia, (Thunb.) Miers. ADPS: 38, NK: 1, #2472 & #624, Dastur #229, GVDB: 141–142. Also identified as Cocculus cordifolius DC. by Nadkarni (NK) and others (see also the Tropicos botanical database) : 77, 106
heart-leaved moonseed (*somavallī*) Tinospora cordifolia (Thunb.) Miers. GVDB: 456. Likely, but uncertain : 131
heart-leaved moonseed creeper (*amṛtavalli*) See *amṛtā* : 274
hedge caper (*hiṃsrā*) Capparis sepiaria L., GVDB: 471, IHR: 124, K & B: 1, 109 : 299
hedge caper (*kākādanī*) synonym of hedge caper (*hiṃsrā*), GVDB: 88, 471, IHR: 124, K & B: 1, 109. This name is not used in the *Carakasaṃhitā*. At 5.7.31 (Su 1938: 583), Ḍalhaṇa glossed *kādādanī* as black Bengal quince (*kṛṣṇaśrīphalikā*). GVDB: vi, 471 note that they have identified *kākādanī* as Cardiospermum halicacabum L. "balloonvine" : 192
henna (*madayantikā*) Lawsonia inermis, L. See AVS: 3, 303, NK: 1, #1448, Potter$_{rev}$: 151 : 132
hibiscus (?) (*ambaṣṭhā*) possibly Hibiscus rosa-sinensis L.? T. B. Singh and Chunekar (GVDB: 18–19) discuss the confusions surrounding the identity of this plant, and especially between this plant and velvet-leaf (*pāṭhā*); they must be different items. T. B. Singh and Chunekar propose that *ambaṣṭhā* is either the fruit of Hibiscus or the galls of a Quercus or Tamarix species. According to Meulenbeld 1974*b*: 599, *vanakārpāsī* is more likely a name for a hibiscus : 183
Himalayan birch (*bhūja*) see Himalayan birch (*bhūrja*) : 198
Himalayan birch (*bhūrja*) Betula utilis D. Don, GVDB: 287 : 299
Himalayan mayapple (*vakra*) Podophyllum hexandrum, Royle (NK: #1971), K & B: 1, 68. But perhaps a synonm of crape jasmine (*tagara*, *nata* q.v. (GVDB: 354)) : 153, 181, 182, 192
Himalayan yew (*sthauṇeya*) see Himalayan yew (*sthauṇeyaka*) : 200
Himalayan yew (*sthauṇeyaka*) T. B. Singh and Chunekar (GVDB: 458–459) suggested Taxus baccata L., but that tree is endemic to the Mediterraenean and not South Asia. Poudel et al. 2013 show that T. contorta Griff., T mairei (Lemée & Lév.) and T. wallichiana Zucc. are distributed in the Hindu Kush - Himalaya region. The Nepalese name Thuṇeraka is etymologically cognate with the Sanskrit name. T. contorta is of medicinal importance, so its common name is used here : 181, 299
hogweed (*punarnavā*) Boerhaavia diffusa, L. See ADPS: 387, AVS: 1, 281, NK: 1, #363 : 107, 132, 146, 183, 299
hogweed (*punarṇavā*) see hogweed (*punarnavā*) : 191
hogweed (*punarṇṇavā*) see hogweed (*punarnavā*) : 194
hogweed (*varṣābhu*) see hogweed (*varṣābhū*) : 191
hogweed (*varṣābhū*) see hogweed (*punarnavā*). According to GVDB: 361, it is Trianthema portulacastrum L., but this is mainly known from Africa and the new world. The name is often considered a synonym for hogweed (*punarnavā*) : 299

Holostemma creeper (*jīvantī*) → *sūryavallī*? Holostemma ada-kodien, Schultes. See ADPS: 195, AVS: 3, 167, 169, NK: 1, #1242 : 108, 306

holy basil (*surasa*) Ocimum tenuiflorum, Linn. GVDB: 438–439 : 183

honey (*kṣaudra*) Eight varieties of honey are described in the *Suśrutasaṃhitā* (NK: 2, Appendix 192). *Kṣaudra* is the product of a small bee of tawny colour, called *kṣudra* : 113, 134, 214, 215

horned pondweed (*śaivāla*) also *śaivāla*, *śevāra*. Zannichellia palustris L. The uncertainties of this identification are discussed by T. B. Singh and Chunekar (GVDB: 409). Sometimes identified with scutch grass (*dūrvā*) (GVDB: 409). Identified as Ceratophyllum demersum Linn. ("hornwort") by AVS: 2, 56–57x : 106, 300, 307

hornwort (*jalaśūka*) → *jalanīlikā*. Ceratophyllum demersum, L. See AVS: 2, 56, IGP: 232. T. B. Singh and Chunekar (GVDB: 166) suggest horned pondweed. Ḍalhaṇa noted on 1.16.19 (Su 1938: 79) that some people interpret it as a poisonous, hairy, air-breathing, underwater creature : 53

horse gram (*kaulattha*) See horse gram (*kulattha*) : 176

horse gram (*kulattha*) Macrotyloma uniflorum (Lam.) Verdcourt, syn. Dolichos biflorus, L., D. uniflorus, Lam., GVDB: 109, POWO: sub Macrotyloma uniflorum : 109, 110, 180, 201, 300

horseradish tree (*madhukaśigru*) Moringa oleifera Lam., GVDB: 398–399. See horseradish tree (*śigru*) : 197

horseradish tree (*muruṅgī*) see horseradish tree (*śigru*) (GVDB: 311) : 182

horseradish tree (*śigru*) Moringa oleifera Lam. See IGP: 759, GJM1: 603, Dymock: 1, 396, GVDB: 398–399 : 106, 107, 300

hyacinth beans (*niṣpāva*) Lablab purpureus (L.) Sweet (1826) GVDB: 228 : 95

Indian aconite (*ativiṣā*) Aconitum ferox , Wall. ex Ser., or perhaps A. heterophyllum Wall. ex Royle, GVDB: 12, NK: 1, #39. Also called "atis roots" or just *viṣā*. A. ferox is also called aconite, monkshood, wolfsbane, etc. A. ferox is extremely poisonous. See also Indian aconite (*vatsanābha*). It grows especially in mountainous Sikkim : 96, 132, 134, 153, 198, 200, 300

Indian aconite (*vatsanābha*) Aconitum ferox, Wall. ex Ser. Cf. AVS: 1, 47 (A. Napellus, L., which is European and now taxonomically separated from A. ferox), NK: 1, #42, Potter$_{rev}$: 4 f. A. chasmanthum Stapf ex Holmes according to GVDB: 357, but that is distributed in Pakistan, Afghanistan and Tibet, Mongolia and Siberia. "*vatsanābha*" occurs in only once in the *Carakasaṃhitā* and thrice in the *Suśrutasaṃhitā* (Ca4.23.11571, Su5.2. 5, 6, 12564) : 140, 141, 292, 300

Indian aconite (*viṣā*) see Indian aconite (*ativiṣā*), GVDB: 12, 373 : 292, 307

Indian barberry (*añjana*) see Indian barberry (*dāruharidrā*) Cf. elixir salve (*rasāñjana*) : 54, 133, 296

Indian barberry (*dāruharidrā*) Berberis holstii Engl., Dymock: 1, 65, NK: 1, #335, #685, GJM1: 562, IGP: 141, GVDB: 203 : 146, 147, 300, 311

Indian barberry (*dārvī*) see Indian barberry (*dāruharidrā*) : 215

Indian barberry (*kālīyaka*) see Indian barberry (*dāruharidrā*) : 131

Indian bat tree (*śuṅgā*) → *parkaṭīvṛkṣa* according to *Śabdasindhu*: 1058; idem also suggests *vaṭavṛkṣa*, i.e., Ficus benghalensis Linn. and *āmrātaka*, Spondias pinnata (L.f.) Kurz. (native to S.E Asia but naturalized in S. Asia). Contrasted with *vaṭa* at *Suśrutasaṃhitā*

3.2.32. Cf. MW: 1081. : 81
Indian bdellium-tree (*guggula*) See Indian bdellium-tree (*guggulu*) : 181
Indian bdellium-tree (*guggulu*) Commiphora wightii (Arn.) Bhandari (GVDB: 140). This is a flowering shrub or small tree that produces a fragrant resin commonly called *guggulu*. The name sometimes refers to the plant and sometimes to the resin. Known to ancient Greek authors (Ball 1888: 340) : 113, 301
Indian beech (*naktamāla*) Pongamia pinnata, (L.) Pierre. See AVS: 4, 339, NK: 1, #2003 : 44, 101
Indian cherry (*śelu*) Cordia myxa, L. non Forssk. See GJM1: 529 (2), IGP: 291b, cf. AVS: 3, 1677 f; cf. AVS: 2, 180 (C. dichotoma, Forst.f.), NK: 1, #672 (C. latifolia, Roxb.). See Indian cherry (*śleṣmātakī*) : 107, 146
Indian cherry (*śelū*) see Indian cherry (*śleṣmātakī*), GVDB: 408 : 200
Indian cherry (*śleṣmātakā*) see Indian cherry (*śleṣmātakī*) : 197
Indian cherry (*śleṣmātakī*) Cordia dichotoma G. Forst., AVS: 2, 180–183. See POWO: C. dichotoma; Cordia myxa L., according to T. B. Singh and Chunekar (GVDB: 413–414), although they also suggest C. dichotoma (synonym of C. wallichii G. Don.) and C. rothii (synonym of Cordia sinensis Lam.) : 182, 301
Indian dill (*śatapuṣpā*) Anethum graveolens L. May also be Foeniculum vulgare Mill. See GVDB: 388 for discussion : 108, 200
Indian elm (*cirabilva*) Holoptelea integrifolia (Roxb.) Planch. GVDB: 158, who also say that *pūtika* is a synonym; but that must be different than *pūtikā* : 301
Indian elm (*ciribilva*) see Indian elm (*cirabilva*) : 197
Indian frankincense (*agamṛttikā*) see Indian frankincense (*śallakī*), according to Ḍalhaṇa's comment on *Suśrutasaṃhitā* 5.7.29. A variant form of Indian frankincense (*agavṛttikā*) : 192
Indian frankincense (*agavṛttikā*) see ?? (*nagavṛttikā*), GVDB: 3, 392 : 301
Indian frankincense (*gajavṛttikā*) Boswellia serrata Roxb.; equated with Indian frankincense (*śallakī*) by some, GVDB: 392. See also ?? (*nagavṛttikā*) : 182
Indian frankincense (*śallakī*) Boswellia serrata Roxb., GVDB: 392 : 192, 301
Indian fumitory (*parpaṭa*) the ancient plant is probably impossible to identify, and many alternatives are used today, including especially Fumaria species (GVDB: 239–240). I have cholsen Fumaria indica (Hausskn.) Pugsley, which can be poisonous : 301
Indian fumitory (*reṇu*) see Indian fumitory (*parpaṭa*), GVDB: 339. To be distinguished from pollen (?) (*reṇukā*) : 139
Indian ipecac (*payasyā*) Uncertain. Possibly Tylophora indica (Burm.f.) Merr. Perhaps a synonym of panacea twiner, giant potato, purple roscoea, and plants like asthma plant and Gulf sandmat (GVDB: 237–238). Also "curds" when not a plant : 53, 106, 306
Indian jujube (*sauvīraka*) Zizphus jujuba Mill., GVDB: 458, MBG: sub jujuba : 105, 176
Indian kudzu (*vidārī*) → *payasyā*. Pueraria tuberosa (Willd.) DC. See ADPS: 510, AVS: 1, 792 f, AVS: 4, 391; not Dymock: 1, 424 f. See GJM2: 444, 451, AVS: 1, 187, but AVS: 3, 1719 = Ipmoea mauritiana, Jacq : 53, 77
Indian laurel (*plakṣa*) Ficus microcarpa, L. f. See ADPS: 377 : 198
Indian madder (*mañjiṣṭhā*) Rubia cordifolia, L. See IGP, Chopra: 215,

GVDB: 289 : 49, 147, 181, 182, 191, 198

Indian mottled eel (*varmimatsya*) Almost certainly the mottled eel. MW: 962c noted that the *varmi* fish "is commonly called *vāmi*." The "vam fish," or "বান মাছ (*bān māch*)" in Bengal, is a marine and freshwater eel, *Anguilla bengalensis*. It is the most common eel in Indian inland waters and a prized food fish (Froese and Pauly 2022). However, some NIA languages identify the "vam" fish with the Indian Pike Conger, *Congresox talabonides* (Bleeker) (Talwar and Kacker 1984: 235, 236) : 33

Indian mustard (*sarṣapa*) Brassica juncea, Czern. & Coss. See AVS: 1, 301, NK: 1, #378, GVDB: 426–427 : 36, 140, 198, 304

Indian pennywort (*maṇḍūkaparṇī*) Centella asiatica (L.) Urban. See GVDB: 290, ADPS: 289–291 : 183

Indian sarsaparilla (*sugandhikā*) see Indian sarsaparilla (*śvetasārivā*) GVDB: 430, 436 : 182, 200

Indian sarsaparilla (*sārivā*) → *anantā*. The *śveta* variety is Hemidesmus indicus, (L.) R. Br. ADPS: 434, AVS: 3, 141–145, NK: 1, #1210, GVDB: 430; and the black form, black creeper, *pālindī*. Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes AVS: 3, 141, 145, 203, NK: 1, #1283, 1210, ADPS: 429–430 : 147, 293, 297, 302

Indian sarsaparilla (*śvetasārivā*) Hemidesmus indicus, (L.) R. Br. See Indian sarsaparilla (*sārivā*). ADPS: 434, AVS: 3, 141–145, NK: 1, #1210, GVDB: 430 : 302

Indian snakeroot (*sarpagandhā*) Rauvolfia serpentina, (L.) Benth. ex Kurz. See NK: 1, #2099, ADPS: 439, GVDB: 425; cf. SS 5.5.76–78 : 183, 302

Indian snakeroot (*sarvagandhā*) common spelling in Nepalese MSS for Indian snakeroot (*sarpagandhā*), q.v. : 192

Indian symphorema (*ananta*) Not in GVDB but MW: 25 says "*sinduvāra*" on no authority (see Indian symphorema : 198

Indian symphorema (*sinduvāra*) T. B. Singh and Chunekar (GVDB: 435) settles on Symphorema polyandrum Wight as the identity of this plant. Other authors choose Vitex negundo Linn. See further NK: 1, #2603 (cf. use of leaves), IGP: 1210a, MW: 1088b. Discussion by GVDB: 433–435 : 181, 183, 191, 200, 302

Indian trumpet tree (*śyonāka*) Oroxylum indicum (L.) Benth. ex Kurz. GVDB: 172–173. A component of greater five roots : 302

Indian trumpet tree (*ṭiṇṭuka*) → Indian trumpet tree (*śyonāka*). Oroxylum indicum (L.) Benth. ex Kurz. GVDB: 172–173. A component of greater five roots : 298

Indian trumpet tree (*ṭuṇṭuka*) see Indian trumpet tree (*śyonāka*), GVDB: 172–173 : 198

indigo (*nīlinī*) Indigofera tinctoria, L. See NK: 1, #1309. GVDB: 229–230 propose that this may differ from indigo (*nīlī*), and be rather the Ipomoea hederacea Jacq., "ivy-leaved morning glory." But that plant is native to the Americas, as are most Ipomoea species. I. tinctoria was known to ancient Greek authors (Ball 1888: 343) : 192, 302

indigo (*nīlā*) see indigo (*nīlinī*). Although T. B. Singh and Chunekar (GVDB: 229) refer to an unidentified creeper mentioned in *Carakasaṃhitā* Ci.1-4.7, the use in the Nepalese *Suśrutasaṃhitā* 5.6.24 is likely to refer to indigo (*nīlī*) : 191

indigo (*nīlī*) see indigo (*nīlinī*) : 200, 302

Indrajao (*indrayava*) see *vṛkṣaka* (Indrajao) Holarrhena pubescens Wall. ex G.Don 1837 GVDB: 376, 45 and 84 : 96

Indrajao (*vṛkṣaka*) → *indrayava*, *indrabīja*,

kaliṅga, and *kuṭaja*. Holarrhena pubescens Wall. ex G.Don 1837 GVDB: 376, 45 and 84 : 79, 274, 302
itchytree (*nicula*) Barringtonia acutangula (L.) Gaertn., GVDB: 224 : 198
jambul (*jambū*) Syzygium cumini, (L.) Skeels. See ADPS: 188, NK: 1, #967, Potter$_{rev}$: 168, Wujastyk 2003*a* : 130, 214
jequirity (*guñjā*) Abrus precatorius, L. See AVS: 1, 10, NK: 1, #6, Potter$_{rev}$: 168. See further jequirity (*kālakūṭa*) : 138, 139
jequirity (*kālakūṭa*) see jequirity (*kālakūṭā*) : 141, 303
jequirity (*kālakūṭā*) possibly Abrus precatorius, L. Cf. RRS 21.14. See AVS: 1, 10, NK: 1, #6, Potter$_{rev}$: 168. The Nepalese witnesses agree on the feminine form, *kālakūṭā*, while the more normal gender is masculine. The etymology of the name *kāla-kūṭa*, "black-top," fits with the striking appearance of jequirity seeds. GVDB: 93 does not attempt to identify the plant. The *Rasaratnasamuccaya* of pseudo-Vāgbhaṭa (21.14) says that the *kālakūṭa* poison is similar to "crow's beak" (*kākacañcu*), which is a more certain name for jequirity. Another hypothesis for the name, which could be translated "time/death-peak" might connect it with Sandakphu mountain, whose name is Lepcha for "the height of the poisonous plant" because of the abundance of Aconitum ferox on the mountain : 140, 303
kutki (*kaṭukā*) Picrorhiza kurroa Royle ex Benth. (GVDB: 64–65) : 96, 113, 303, 305
kutki (*kaṭurohaṇī*) → kutki (*kaṭukā*), GVDB: 66, 64–65 : 181
kutki (*kaṭurohiṇī*) see kutki (*kaṭukā*), GVDB: 66, 64–65 : 200
leadwort (*agniśikhā*) Plumbago zeylanica (or rosea?), L. See NK: 1, #1966, 1967 : 303
leadwort (*citraka*) Plumbago zeylanica (or indica?), L. See RĀ. 6.124, ADPS: 119, NK: 1, #1966, 1967 : 44, 78, 96, 101, 112, 181
leadwort (*pālaka*) → citraka. Plumbago zeylanica (indica? rosea?), L. See Rā. 6.124, ADPS: 1, 119, NK: 1, #1966, 1967 : 140, 141
leadwort (*vidyutśikhā*) see leadwort (*agniśikhā*) : 138
lemon grass (*uśīrabheda*) → *lāmajja*. Cymbopogon jwarancusa (Jones ex Roxb.) Schult.. See NK: 1, #176 : 312
lesser five roots (*laghupañcamūla*) Described at *Suśrutasaṃhitā* 1.38.66–67 (Su 1938: 169). Consists of bull's head, hairy-fruited eggplant, yellow-berried nightshade, hare foot uraria, and beggarweed : 294, 297–299, 311, 315
liquorice (?) (*klītaka*) Glycyrrhiza glabra, L.? GVDB: 123–124 discuss the many difficulties in identifying this plant : 138
liquorice (*madhuka*) also *yaṣṭi*(*ka*/*kā*), *yaṣṭīmadhuka*, Glycyrrhiza glabra, L. AVS: 3, 84, NK: 1, #1136, GVDB: 329 f. : 53, 77, 104–109, 111, 134, 145, 147, 181, 197, 200, 215, 303
liquorice (*yaṣṭī*) see liquorice (*madhuka*) : 182
liquorice (*yaṣṭīmadhuka*) see liquorice (*madhuka*) : 54
lodh tree (*lodhra*) Symplocos racemosa, Roxb. See GJM1: 597, ADPS: 279 f, NK: 1, #2420. T. B. Singh and Chunekar (GVDB: 351–352) notes that there are two varieties, S. racemosa, qualified as śāvara, and S. crataegoides Buch.-Ham. for *paṭṭikā lodhra* : 44, 147, 181, 215
long pepper (*kṛṣṇā*) see long pepper (*pippalī*) : 214
long pepper (*māgadha*) see long pepper (*pippalī*) : 133
long pepper (*pippali*) see long pepper (*pippalī*) : 181
long pepper (*pippalī*) Piper longum, L. See ADPS: 374, NK: 1, #1928,

GVDB: 249–250, but cf. AVS: 3, 245 : 77, 78, 101, 107, 108, 112, 113, 134, 147, 198, 201, 214, 274, 303, 304, 311

long pepper root (*pippalīmūla*) see long pepper (*pippalī*) : 198

long-stamen Wendlandia (?) (*prapauṇḍarīka*) See the substantial discussion by T. B. Singh and Chunekar (GVDB: 261). They note that it is used mainly in eye troubles and frequently with liquorice, than which it is has been said to be thicker, and sweet in taste. A candidate they suggest is Wendlandia heynei (Schult.) Santapau & Merchant (formerly W. exserta), native to India; I have accepted that provisionally : 140, 181, 200, 304

long-stamen Wendlandia (?) (*tilaka*) see long-stamen Wendlandia (?) (*prapauṇḍarīka*), GVDB: 183–184. Sometimes thought to be a synonym of viburnum (*tilvaka*), q.v., but this is probably erroneous : 200, 312

lotus (*nalina*) see sacred lotus (*kamala*), GVDB: 218 : 214, 215

lotus stalk (*mṛṇāla*) "Leaf stalk of sacred lotus" GVDB: 318 : 106

luffa (*jālinī*) see luffa (*koṣātakī*), GVDB: 168 : 140, 190

luffa (*kośavatī*) see luffa (*koṣātakī*) : 146

luffa (*koṣātakī*) Luffa cylindrica, (L.) M. J. Roem. or L. acutangula, (L.) Roxb. ADPS: 252–253, NK: 1, #1514 etc. "Kośātakī appears to be used in a general way for all the fruit drugs of the family Cucurbitaceae which have a net-like structure of fibres in the pulp. It thus includes nearly all Luffa species..." GVDB: 121 : 304

mahua (*madhūka*) Madhuca longifolia, (J. Koenig) J. F. Macbride. See AVS: 3, 362 f. Known to ancient Greek authors (Ball 1888: 339–340) : 77, 218–220

maidenhair fern (*haṃsāhvayā*) Adiantum lunaluatum Burm f. GVDB: 463 : 274

malabathrum (*patra*) Cinnamomum tamala, (Buch.-Ham.) Nees. See AVS: 2, 84, NK: 1, #589. Other common names include Indian bay leaf etc., but the plant has an ancient history in the classical world as "malabathrum." See Ball 1888: 341, who also suggests that the chief source of the plant in India is Assam. See also Wikipedia. Kokoszko and Rzeźnicka (2018: 581) discuss the abbreviations "leaf" (φύλλα, *folium*) in the Mediterranean world that parallels the Sanskrit usage. Kokoszko and Rzeźnicka 2018: 584 note that Dioscorides (fl. 1st cent. CE) stated that malabathrum came from India, although Dioscorides' description of malabathrum is of a plant like a Nymphoides indica (L.) Kuntze, not a tree (Osbaldeston and Wood 2000: 17) : 98, 99, 106, 131, 147, 189, 190, 200

Malay beechwood (*śrīparṇī*) → *kāśmarī*. Gmelina arborea Linn., GVDB: 412, 96–97 : 77

maloo creeper (*aśmantaka*) T. B. Singh and Chunekar (GVDB: 27) note that thisis the name of two different drugs, Piliostigma malabaricum (Roxb.)Benth. or Phanera vahlii. (Wight & Arn., 1834) Benth. (non-lactiferous), and Ficus cordifolia Roxb. (lactiferous). I have selected P. vahlii in this context because of its abundance in S. Asia and its Himalayan and Nepalese distribution : 183, 197

mango (*āmra*) Mangifera indica Linn. GVDB: 37 : 130, 183, 198, 214

mangosteen (*amla*) Garcinia pedunculata Roxb. ex Buch.-Ham. See GVDB: 20–21 : 180

marking nut tree (?) (*sārṣapa*) this would normally mean "connected with mustard," (Indian mustard (*sarṣapa*)) and excessive consumption of mustard oil can be harmful. However, the

Sauśrutanighaṇṭu (156) gives *rakṣoghnā* as a synonym for *sarṣapā*. This can be *Semecarpus anacardium*, L.f., which has some poisonous parts ("the black fruit is toxic and produces a severe allergic reaction if it is consumed or its resin comes in contact with the skin" Semalty et al. 2010) : 141
marking-nut tree (*aruṣkara*) see marking-nut tree (*bhallātaka*) : 139, 297
marking-nut tree (*bhallātaka*) Semecarpus anacarium, L. See NK: 1, #2269, AVS: 5, 98, ADPS: 85–86, GVDB: 23, 283 : 101, 133, 305
marsh barbel (*ikṣuraka*) Hygrophila auriculata (Schumach.) Heine (syn. Asteracantha longifolia (L.) Nees.), GVDB: 42–43 : 198
medhshingi (*vijayā*-2) Dolichandrone falcata (Wall. ex DC.) Seem. The *Sauśrutanighaṇṭu* gives a number of synonyms for *vijayā* (Suvedī and Tīvārī 2000: 5.77, 10.143). But one of them, *viṣāṇī* (also *meṣaśṛṅgī*), is sometimes equated with *Dolichandrone falcata* (*DC.*) *Seemann* (GVDB: 373 f; ADPS: 518, a plant used as an abortifacient and fish poison (NK: #862) : 139
migraine tree (*agnimantha*) Premna corymbosa, Rottl. See AVS 1927, ADPS: 21, NK: 1, #2025, AVS: 4, 348; GJM1: 523: = P. integrifolia/serratifolia, L : 146, 298
milk-white (*kṣīraśuklā*) An unidentified plant. GVDB: 126: see purple roscoea and giant potato : 53, 308
monkey (?) (*markaṭa*) T. B. Singh and Chunekar (GVDB: 299) said of *markaṭa*, "an unidentified vegetable poison." Cf. Suvedī and Tīvārī 2000: v.36 for synonyms that lead to the non-toxic jujube tree : 142
muddy (?) (*kardama*) unknown. : 140, 142
mulberry (*kramuka*) probably the mulberry (*tūda*); see discussion by T. B. Singh and Chunekar (GVDB: 122) : 182
mulberry (*tūda*) Morus indica L., GVDB: 189 : 305
mung beans (*mudga*) Phaseolus radiatus L. GVDB: 310–311 : 105, 108, 220
mung beans (*māṣaka*) Phaseolus mungo Linn. GVDB: 308 : 131
munj grass (*nārācaka*) Saccharum bengalense, Retz.?. See NK: 1, #2184 : 140
musk mallow (*latākastūrikā*) Abelmoschus moschatus Medik., GVDB: 348 : 305
musk mallow (*ullaka*) kutki (*kaṭukā*) or musk mallow (*latākastūrikā*), according to GVDB: 54; I have chosen the latter identity since A. moschatus can cause phototoxic dermatitis (Diedrich et al. 2024: 621) : 305
musk mallow (*ullika*) see musk mallow (*ullaka*) : 139
myrobalan (*abhayā*) Terminalia chebula, Retz. See ADPS: 172, NK: 1, #2451, Potter$_{rev}$: 214 : 96, 146, 153
myrobalans (*pathyā*) Terminalia chebula Retz. See NK: 1, #2451 : 214
natron (*suvarcikā*) Sodium carbonate. NK: 2, #45. Ḍalhaṇa identifies *suvarcikā* with svarjikṣāra 4.8.50 (Su 1938: 441) : 112, 147, 181
neem (*picumarda*) see neem tree (*nimba*), GVDB: 247–248 : 197
neem tree (*nimba*) Azadirachta indica A. Juss., GVDB: 226 : 50, 274, 305
nutgrass (*kuruvinda*) Unknown. Ḍalhaṇa on 5.3.15 (Su 1938: 568) glossed the term as nutgrass, but noted other opinions that it was a whetstone or a very special metallic gem. T. B. Singh and Chunekar (GVDB: 108) added that it could be a variety of rice, *ṣaṣṭika dhānya* : 153
nutgrass (*mustaka*) Cyperus rotundus, L. See ADPS: 316, AVS: 2, 296, NK: 1, #782 : 140, 142

nutgrass (*mustā*) Cyperus rotundus, L. See ADPS: 316, AVS: 2, 296, NK: 1, #782 : 305
odal oil plant (*iṅgudi*) see odal oil plant : 189
odal oil plant (*iṅgudī*) Kirtikar et al. (K & B: 5, 79) also firmly identify *iṅgudī* as Sarcostigma kleinii Wight & Arn., a liana well known in the Western Ghats and widely used in āyurveda, including for skin diseases. Balanites agyptiaca (L.) Delile, GVDB: 43 is an African plant and unlikely to be the original āyurvedic *iṅgudi*. : 306
oleander spurge (*mahāvṛkṣa*) see oleander spurge (*snuhī*), GVDB: 302-303 : 197
oleander spurge (*nandā*) see oleander spurge (*snuhī*), GVDB: 215 : 310
oleander spurge (*snuhā*) see oleander spurge (*snuhī*) : 101, 140, 191
oleander spurge (*snuhī*) Euphorbia neriifolia, L., or E. antiquorum, L. See ADPS: 448, AVS: 2, 388, AVS: 3, 1, NK: 1, #988, IGP: 457b. T. B. Singh and Chunekar (GVDB: 459) discuss the two varieties distinguished by Caraka on the basis of their spines. Euphorbia all share the feature of having a poisonous, latex-like sap : 306, 310
orchid tree (*kovidāra*) Bauhinia purpurea Linn. or B. variegata Linn. (probably the former), GVDB: 120, AVS: 1, 256–260. The fruit of *kovidāra* is contrasted with the mango in Patañjali's *Mahābhāṣya* (on P1.2.45, varttika 8) : 176
paddy rice (*śāli*) Oriza sativa, Linn. GVDB: 395–396 mentioning 33 Sanskrit sub-variety names; AVS: 4, 193 : 37, 308
painted uraria (*pṛṣṇaparṇī*) Uraria picta (Jacq.) Desv. ex DC. and U. lagopoides DC are both to be used for this plant according to GVDB: 257–258. See also IHR: 188–190 : 192
pale Java tea (*arjaka*) Orthosiphon pallidus Royle ex Benth., GVDB: 24, based on Ḍalhaṇa's descriptions, and by Sharma 1982: 127, #60. But Ocimum basilicum L., according to AVS: 4, 160 : 200
panacea twiner (*arkapuṣpī*) → *arkaparṇī*, Tylophora indica (Burm. f.) Merr. GVDB: 23–24. Maybe identical to Indian ipecac, giant potato and similar sweet, milky plants. See GVDB: 24, 127, 238, 441, 443 for discussion. For discussion in the context of Holostemma creeper, see ADPS: 195 and AVS: 3, 171. The etymology of the name suggests Helianthus annus Linn., but this plant is native to the Americas : 146, 301
peas (*hareṇu*) Pisum sativum, L. T. B. Singh and Chunekar (GVDB: 419–420, 467–468) note that two plants are usually meant under this name, but there is no agreement on the identity of the second. Synonym of peas (*satīna*). GVDB: 468 make an argument for Symphorema polyandrum Wight : 106, 146, 147, 153, 182, 214, 306, 307
peas (*hareṇukā*) see peas (*hareṇu*) : 200
peas (*satīna*) see peas (*hareṇu*), GVDB: 419-420 : 306
peepul tree (*aśvattha*) Ficus religiosa, L. See ADPS: 63. Known to ancient Greek authors (Ball 1888: 338–339) : 155
periploca of the woods (*meṣaśṛṅga*) Gymnema sylvestre (Retz.) R. Br. See AVS: 3, 107, NK: 1, #1173 : 133
phalsa (*parūṣaka*) Grewia asiatica Linn., GVDB: 238 : 78
plants like asthma plant and Gulf sandmat (*dugdhikā*) synonym of plants like asthma plant and Gulf sandmat (*kṣīriṇī*), GVDB: 204–205, 127 : 307
plants like asthma plant and Gulf sandmat (*kṣīriṇī*) various milky plants, perhaps including Euphorbia hirta Linn. (asthma plant) and E. microphylla Heyne (Gulf sandmat) (GVDB: 127) :

301, 306, 307
plants like asthma plant and Gulf sandmat (*yavaphalā*) synonym of plants like asthma plant and Gulf sandmat (dugdhikā), and plants like asthma plant and Gulf sandmat (*kṣīriṇī*), q.v., GVDB: 327, 127 : 200
plumed cockscomb (*indīvara*) Uncertain; possibly Celosia argentea Linn. But see the useful discussion in GVDB: 44–45. Possibly another name for thorn apple (*karambha*), q.v. : 311
pointed gourd (*paṭola*) Trichosanthes dioica, Roxb., GVDB: 232–233 : 106, 146, 293
poison-altar (?) (*viṣavedikā*) Unknown. Possibly, at a guess, strychnine tree (*viṣamuṣṭika*)? GVDB: 373 Or Indian aconite (*viṣā*) : 139
pollen (?) (*reṇukā*) An unidentifiable plant. Perhaps a misreading for peas (*hareṇu*), although this is a long shot. T. B. Singh and Chunekar (GVDB: 339) suggest, on no authority, the synonyms *vṛkṣaruhā, māṃsarohiṇī*, or *durvā*, none of which help : 139, 301
pomegranate (*dāḍima*) Punica granatum Linn. GVDB: 201–202 : 77, 78, 111, 112, 183, 192
pondweed (*paripelavā*) Normally a neuter noun. T. B. Singh and Chunekar (GVDB: 238, 264–265, 409) argued that *plava* and *śaivāla* are the same thing, and may be either Zannichellia palustris, L., or Potamogeton pectinatus, L : 147
pondweed (*śevāla*) Zannichellia palustris L. See horned pondweed : 35, 36
pongame oiltree (*karañja*) see pongame oiltree (*karañjikā*) : 113, 192
pongame oiltree (*karañjikā*) T. B. Singh and Chunekar (GVDB: 74–76) discuss complications, but probably Pongamia pinnata (L.) Pierre in *Suśrutasaṃhitā* 5.6.3 : 198, 307
powdered ruffle lichen (*śaileya*) Parmotrema perlatum (Huds.) M.Choisy (1952), although there are some inconsistencies in groups and synonyms. See GVDB: 408–409, AVS: 4, 222–225. The plant has a notably complex taxonomic history : 200, 307
powdered ruffle lichen (*śaileyaka*) see powdered ruffle lichen (*śaileya*) : 181
prickly chaff-flower (*apāmārga*) Achyranthes aspera, L. See GVDB: 14, GJM1: 524 f, AVS: 1, 39, ADPS: 44 f, AVS: 3, 2066 f, Dymock: 3, 135 : 49, 53, 105, 199, 307
prickly chaff-flower (*vasira*) also *vaśīra*. Perhaps Achyranthes aspera, L. GVDB: 362 describes several possible identities, including *sūryāvarta*, prickly chaff-flower and *markaṭatṛṇa*. See also *vasukavasira* (GVDB: 363) : 78
prickly-leaved elephant's foot (*gojihvā*) syn. *gojī*. Elephantopus scaber, L. See AVS: 2, 357. T. B. Singh and Chunekar (GVDB: 145–146) argue that *gojihvā śāka* is Launaea asplenifolia (Willd) Hook. f. (creeping Launaea), a plant with Himalayan to SE Asian distribution : 307
prickly-leaved elephant's foot (*gojī*) T. B. Singh and Chunekar (GVDB: 145–146) observe that this plant name is unique to the *Suśrutasaṃhitā*. Since the usage is similar to that of prickly-leaved elephant's foot (*gojihvā*), q.v, it is almost certain to be the same plant. : 198
products of the wood-apple (*kāpitta*) a reading in the Nepalese MSS for products of the wood-apple (*kāpittha*), q.v. : 193
products of the wood-apple (*kāpittha*) relating to or derived from the wood-apple (*kapittha*) : 307
purging nut (*dravantī*) Jatropha curcas, L. See AVS: 3, 261, NK: 1, #1374. A.k.a.

mūṣikaparṇī : 308
purging nut (*mūṣikā*) Jatropha curcas, L. See AVS: 3, 261, NK: 1, #1374 : 133
purging nut (*putraśreṇī*) Commonly identified as croton tree (*nāgadantī*), GVDB: 253 "a variety of red physic nut (*dantī*)." But it appears in a list with *nāgadantī* at *Suśrutasaṃhitā* 5.6.3, and Ḍalhaṇa identified it there as purging nut (*dravantī*) : 198
purging nut tree (*mūṣikakarṇī*) Jatropha curcas, L. AVS: 3, 261, NK: 1, #1374, GVDB: 317. GVDB: 317; ADPS: 23–25 discuss this issue well : 131, 132
purple calotropis (*arka*) Calotropis gigantea, (L.) R. Br. See ADPS: 52, AVS: 1, 341, NK: 1, #427, Potter$_{rev}$: 57, Chopra IDG: 305–308 : 44, 53, 101, 176, 194, 197
purple fleabane (*somarājī*) see scurfy pea (*bākucī*), but GVDB: 455–456 note that two areas of therapy (antitoxin, antileucoderma) may point to two plants being used under this name or a different plant with two active ingredients. A particular candidate is Baccharoides anthelmintica (L.) Moench. : 200
purple roscoea (*kṣīrakākolī*) GVDB: 89 notes that many physicians use *Roscoea procera* Wall. in this context. But the identification is uncertain. Possibly connected to milk-white or giant potato : 105, 301, 305
pussy willow (*vetasa*) Salix caprea L., GVDB: 380–381, q.v. for the argument that this is not the same as rattan (*vetra*) : 308
pussywillow (*vañjula*) see pussy willow (*vetasa*); T. B. Singh and Chunekar (GVDB: 356) note that this is a tree in the *nyagrodha* group and has sometimes been equated with Asoka tree (*aśoka*) and sometimes with sandan (*tiniśa*) : 106, 198
radish (*mūlaka*) Raphanus sativus, L. See NK: 1, #2098 : 110, 140, 142
rajmahal hemp (*moraṭa*) → *mūrvī*, Marsdenia tenacissima (Roxb.) Wight et Arn. Good discussion at GVDB: 314–316, 324 : 146
rajmahal hemp (*mūrvā*) Gongronemopsis tenacissima (Roxb.) S.Reuss, Liede & Meve (= Marsdenia tenacissima (Roxb.) Moon), GVDB: 314–316. One of the twenty-two drugs in the group *madanādi*. T. B. Singh and Chunekar and ADPS: 310–313 discuss the long controversy about the identity of this plant. Sansevieria roxburghiana Schult. & Schult.f. ("Indian bowstring hemp") was preferred by Meulenbeld (GJM1: 590) and the sources he cited, including NK: 1, #2216, K & B: 4, 2457; ADPS: 310 mention this identity as being local to Bengal, but note that the plant is not a creeper : 108, 298
rattan (*vetra*) Calamus rotang, L. See AVS: 1, 330, NK: 1, #413. T. B. Singh and Chunekar (GVDB: 381) prefer C. tenuis, Roxb., which is also native to S. and S.E. Asia : 308
realgar (*manaḥśilā*) Arsenii disulphidium NK: 2, #11 : 214
red gourd (*bimbī*) Coccinia indica, W. & A. See PVS 1994.4.715; NK: 1, #534 : 130
red ochre (*gairika*) Hellwig 2009: 140–141. NK: 2, #40; the same source, at #6, gives kaoolinum or china clay : 147, 181, 183, 200, 214, 215
red physic nut (*dantī*) Baliospermum solanifolium (Burm.) Suresh, GVDB: 200 : 99, 140, 192, 198, 308
resin of white dammer tree (*sarjarasa*) GVDB: 424–425. See white dammer tree (*sarja*) : 108, 200
rice grains (*taṇḍula*) Oriza sativa, Linn. Same as paddy rice (*śāli*) GVDB: 174; or just "grains" : 37
rice-grain chaff (*śālitaṇḍulakāṇḍana*) See

chaff : 37
rock salt (*saindhava*) See NK: 2, M#48, Watt$_{Comm}$: 963–971 : 36, 77, 112, 181, 214, 294
rosha grass (*dhyāmaka*) Cymbopogon martinii (Roxb.) Wats. See AVS: 2, 285, NK: 1, #177 : 147, 181, 200
royal jasmine (*mālatī*) Jasminium grandiflorum, L. See NK: 1, #1364, ADPS: 285–288 : 131, 309
royal jasmine (*sumanā*) see royal jasmine (*mālatī*), GVDB: 437 : 200
sacred lotus (*kamala*) Nelumbo nucifera, Gaertn., GVDB: 73–74, Dutt: 110, NK: 1, #1698 : 304, 309
sacred lotus (*padma*) see sacred lotus (*kamala*), GVDB: 235–236 : 35, 106, 131, 200, 313
saffron (*bāhlīka*) syn. of saffron (*kuṅkuma*), q.v., GVDB: 273–274 : 198
saffron (*kuṅkuma*) Crocus sativus Linn., GVDB: 100. On the history of confusions between saffron and turmeric, see Cox 2011 : 192, 309
sage-leaved alangium (*aṅkolla*) Alangium salvifolium (Linn. f.) Wang., GVDB: 5–6. See also AVS: 1, 77; cf. NK: 1, #88 : 130, 183, 190, 192, 309
sage-leaved alangium (*aṅkoṭha*) see sage-leaved alangium (*aṅkolla*) : 197
sal group of trees (*śālasārādi*) *śālasārādi* is a group (*gaṇa*) of twenty-three trees listed at 1.38.8–9 (Su 1938: 165), *Mahākośa*: 1, 898 : 78
sal tree (*śālā*) Shorea robusta, Gaertn.f. See AVS: 5, 124 : 214
sandalwood (*candana*) Santalum album, L. See ADPS: 111, NK: 1, #2217. See GVDB: 152–153 for discussion of types, including white and red (Pterocarpus santalinus (L.f.)) : 79, 106, 108, 147, 176, 182, 200, 313
sandan (*tiniśa*) Ougeinia oojeinensis (Roxb.) Hochr. GVDB: 181, q.v. for discussion about whether *tiniśa* and *syandana* are to be separated. If other trees are in the frame for either name, T. B. Singh and Chunekar (GVDB) suggest Lagerstroemeia parviflora Roxb. (*sidhraka*/*siddhaka*) and L. flos-reginae Retz. (*jārula* by some). See GVDB: 432 : 197, 200, 308
sappanwood (*pattāṅga*) Also *pattaṅga*. Caesalpinia sappan, L. AVS: 1, 323, K & B: 2, 847 f, GVDB: 234 : 44, 54
scarlet mallow (*bandhujīva*) Pentapetes phoenicea, L. NK: #1836, GVDB: 268 : 132
scented pavonia (*bālaka*) Pavonia odorata, Willd. See ADPS: 498, NK: 1, #1822 : 147
scented pavonia (*toya*) → bālaka? Pavonia odorata, Willd. ADPS: 498, NK: 1, #1822 : 200
scramberry (*tālīsapatra*) see scramberry (*tālīśa*) : 200
scramberry (*tālīśa*) T. B. Singh and Chunekar (GVDB: 179, 458–459) discusses the several identifications and regional differences in identifying this plant. Taxus baccata Linn. is a common candidate, as is Flacourtia jangomas (Lour.) Raeusch. (scramberry) : 106, 215, 309
screwpine (*ketaka*) Pandanus tectorius Parkinson ex Du Roi, GVDB: 116 : 292
scurfy pea (*bākucī*) Identified as Cullen corylifolia (L.) Medik. ADPS: 69–70, GVDB: 272 : 308
scutch grass (*dūrvā*) Cynodon dactylon (Linn.) Pers., GVDB: 205 : 300, 309
scutch grass (*granthilā*) see scutch grass (*dūrvā*), *Mahākośa*: 1, 303, citing the *Rājanighaṇṭu*. It should be an aromatic in this context. Monier-Williams et al.: 371 said "two kinds of Dūrvā grass and of a kind of Cyperus" on lexical authority, perhaps also the *Rājanighaṇṭu* where it is listed amongst sweet-smelling plants. Other sources

identify it as Cissus quadrangularis, L., i.e., Veltd grape (Ś. Gupta 1887: 272), or Bengal quince (*bilva*) : 200
sedge (*kuṭannaṭa*) → *plava*, *tagara*, or *śyonāka*, according to commentators (GVDB: 102–103). T. B. Singh and Chunekar leans towards the *plava*, but that plant too is difficult to identify. Various sources identify *kuṭannaṭa* as Cyperus rotundus L., C, scariosus R. Br., Oroxylum indicum (L,) Benth. ex Kurz (= Bignonia Indica L.) or even Cinnnamomum verum J.Presl. The Cyperus genus comprises about 700 species of sedges, and I have chosen "sedge" as a generic indication of the likely identity of this plant : 181, 310
sedge (*kuṭannaṭā*) see sedge (*kuṭannaṭa*) : 200
sesame (*tila*) Sesamum indicum L. GVDB: 183. Known to ancient Greek authors (Ball 1888: 344) : 200, 201
sesame oil (*taila*) Sesamum indicum L. GVDB: 183 : 53, 176
shami tree (*śamī*) Prosopis cineraria (L.) Druce GVDB: 390 : 197, 294
silk-cotton tree (*śālmalī*) Bombax malabarica. See Issar: 152 : 200
siris (*śirīṣa*) Albizia lebbeck, Benth. See AVS: 1, 81, NK: 1, #91, GVDB: 399–400. Cf. white siris : 146, 176, 189–193, 199, 200, 214, 314
siris seeds (*śirīṣamāṣaka*) Albizia lebbeck, Benth. See AVS: 1, 81, NK: 1, #91 : 130, 191
small-flowered crape myrtle (*sidhraka*) Lagerstroemia parviflora Roxb., GVDB: 432 : 152
smooth angelica (*coraka*) Angelica glauca Edgw. GVDB: 161. Distribution: Afghanistan, Himalaya, western Tibet (POWO). Edgeworth even recorded the indigenous name "chura" (Edgeworth 1851: 53) : 183, 198, 310
smooth angelica (*taskara*) see smooth angelica (*coraka*), GVDB: 176 : 200
snakeroot (*sugandhā*) → *sarpagandhā* Rauvolfia serpentina Benth. ex Kurz. See *sarpagandhā*. But may be Aristolochia indica Linn. Has been identified with *nākulī*, or *gandhanākulī*. See (GVDB: 219, 436) : 138
spikenard (*jaṭā*) see spikenard (*jaṭāmāṃsī*) : 191, 200
spikenard (*jaṭāmāṃsī*) Nardostachys jatamansi (D.Don) DC, GVDB: 163. See also NK: 1, #1691. Known to ancient Greek authors (Ball 1888: 343–344) : 310
spikenard (*māṃsī*) see spikenard (*jaṭāmāṃsī*) : 147, 182, 200
spikenard (*nalada*) see spikenard (*jaṭāmāṃsī*) : 128, 182, 200
spiny bitter gourd (*karkāruka*) Momordica cochinchinensis (Lour.) Spreng., (Thunb.) Cogn. SeeAVS: 2, 1135, IGP 754 (or Beninkasa hispida?AVS: 2, 1127; cf. AVS: 1, 261). M cochinchinensis has poisonous seeds (NEH: 279) : 298
spurge (?) (*nandanā*) an unknown poisonous plant, a.k.a. (equally obscurely) *udīmānaka*, GVDB: 215 (where it is m.). Perhaps a synonym of oleander spurge (*snuhī*), like oleander spurge (*nandā*) : 139
spurge (*saptalā*) T. B. Singh and Chunekar (GVDB: 421–422) discuss the four candidates for this plant, three of which are Euphorbias : 110, 183
strychnine tree (*viṣamuṣṭika*) Strychnos nux vomica Linn., GVDB: 373 : 307
sugar (*sitā*) Ḍalhaṇa makes this equation at 1.37.25 (Su 1938: 162) : 147, 182
sugar (*śarkara*) Saccharum officinarum, Linn. NK: #2182 : 134
sugar cane (*ikṣu*) Saccharum officinarum, Linn. NK: #2182 : 134
sunflower (*sūryavallī*) → *ādityavallī*, *sūryamukhī*, Helianthus annūs Linn.

GVDB: 35, 443 : 146
sweet flag (*vacā*) Acorus calamus Linn. See GVDB: 352–355 : 105, 112, 198
sweet plants (*madhuravarga*) The sweet plants are enumerated at *Suśrutasaṃhitā* 1.42.11. See also GVDB: 127 : 53
sweet-scented oleander (*aśvamāraka*) Nerium oleander, L. See ADPS: 223, NK: 1, #1709, GVDB: 77, which discusses the white and red forms : 138
teak (*śāka*) Tectona grandis, L.f. See AVS: 5, 245, (MW: 1061) : 197
Tellicherry bark (*kuṭaja*) Holarrhena pubescens Wall. ex G.Don, with Wrightia tinctoria and W. arborea considered GVDB: 101–102, ADPS: 267–270 : 101, 197, 297
ten roots (*daśamūla*) Described at *Suśrutasaṃhitā* 1.38.70–71 (Su 1938: 169) as a combination of the lesser five roots and the greater five roots : 297
the three myrobalans (*triphalā*) chebulic myrobalan beleric myrobalan and emblic myrobalan (*harītakī bibhītaka* and *āmalaka*) One of the most-often mentioned drugs in the Bṛhattrayī GVDB: 194–196 : 99, 181, 182, 191, 192, 293
the three pungent drugs (*kaṭutrika*) see the three pungent drugs (*trikaṭu*) : 193, 200
the three pungent drugs (*trikaṭu*) dried ginger, long pepper, and black pepper (*śuṇṭhī*, *pippalī*, and *marica*) GVDB: 193 : 181, 311
the three pungent drugs (*vyoṣa*) see the three pungent drugs (*trikaṭu*), GVDB: 382–383 : 192
the two types of clitoria (*śvete*) see white clitoria (*śvetā*) : 200
the two types of turmeric (*haridre*) see turmeric (*haridrā*) and Indian barberry (*dāruharidrā*), GVDB: 465–466 : 200
thorn apple (*karambha*) Datura metel, L. See GVDB: 76 for useful discussion. Also, AVS: 2, 305 (cf. Abhidhānamañjarī), NK: 1, #796 ff. Potter$_{rev}$: 292 f, ADPS: 132. Possibly the same plant as plumed cockscomb (*indīvara*) (GVDB: 76, 44–45) : 139, 140, 293, 307
three heating spices (*tryūṣaṇa*) śuṇṭhī (Dried ginger) Zingiber officinale, Roscoe. ADPS: 50, NK: 1, #2658, AVS: 5, 435, IGP 1232, pippalī (long pepper) Piper longum, L.ADPS: 374, NK: 1, #1928, and marica (black pepper) Piper nigrum, L.ADPS: 294, NK: 1, #1929 : 79, 146
three-leaved caper (*varuṇa*) Crataeva magna (Lour.) DC. See AVS: 2, 202; cf. NK: 1, #696 : 133, 183, 198, 311
three-leaved caper (*varuṇaka*) see three-leaved caper (*varuṇa*) : 200
toothed-leaf limonia (*surasī*) Naringi crenulata (Roxb.) Nicolson (formerly Limonia crenulata Roxb.), GVDB: 439 : 182, 200
top layer of fermented liquor (*surāmaṇḍa*) K & B: 2, 502, NK: 2, appendix VI, #49, McHugh 2021: 39 : 51, 52
tree cotton (*kārpāsa*) Gossypium arboreum L. ADPS: 231, *pace* the identifications of T. B. Singh and Chunekar (GVDB: 92, 247), since G. barbadense L. is native to South America and G. herbaceum L. is native to Africa : 50, 311
tree cotton (*picu*) See tree cotton (*kārpāsa*) : 52, 54
tree of heaven (*arala*) probably Alianthus excelsa Roxb., GVDB: 21–22 : 197
turmeric (*gaurī*) Curcuma longa, L. See ADPS: 169, AVS: 2, 259, NK: 1, #750 : 106
turmeric (*haridrā*) Curcuma longa Linn. GVDB: 465. On the history of confusions between saffron and turmeric, see Cox 2011 : 107, 146, 153, 181, 311
turmeric (*rajanī*) Curcuma longa, L.

ADPS: 169, AVS: 2, 259, NK: 1, #750 : 36, 147, 182, 192
turpeth (*trivṛt*) → *tṛvrtā*. Operculina turpethum (Linn.) Silva Manso = Ipmoea turpethum R. Br. GVDB: 197. : 99, 134, 181, 276, 293
turpeth (*tṛvṛt*) The common spelling in Nepalese MSS of *trivṛt* : 192
two kinds of salt (*vasukavasira*) See the discussion by T. B. Singh and Chunekar (GVDB: 362–363), who note that when *vasuka* is mentioned together with *vasira*, two varieties of salt are often meant (see *vasukavasirā*) : 77
unknown fruit poison (*veṇuka*) see unknown fruit poison (*veṇukā*) : 139
unknown fruit poison (*veṇukā*) Bambusa bambos, Druce?. See NK: 1, #307, GVDB: 380. The Nepalese transmission has the m. *veṇuka*, not the f. *veṇukā* T. B. Singh and Chunekar (GVDB: 380) note that this is an unknown fruit-poison : 312
velvet bean (*svayaṃguptā*) Mucuna pruriens (L.) DC., GVDB: 461, who say that the plant is known in the *Carakasaṃhitā* but not the *Suśrutasaṃhitā* : 214, 312
velvet bean (*ārṣabhī*) see velvet bean (*ṛṣabhī*) and velvet bean (*svayaṃguptā*). *Mahākośa*: 1, 94, citing the *Rājanighaṇṭu* 3.50, 201 : 190
velvet bean (*ṛṣabhī*) see velvet bean (*svayaṃguptā*), MW: 226, GVDB: 56 : 312
velvet-leaf (*pāṭhā*) Cissampelos pariera, L. See ADPS: 366, NK: 1, #592, GJM1: 573, AVS: 1, 95; cf. AVS: 2, 277 : 44, 79, 96, 112, 146, 181, 182, 299
velvet-mite (*indragopa*) Kerria lacca (Kerr.). Lienhard 1978 : 129
verbena (*bhārgī*) see verbena (*bhārṅgī*) : 182, 200
verbena (*bhārṅgī*) → phañjī. Clerodendrum serratum (L.) Moon or C. serratum; see AVS: 2, 121, ADPS: 87 : 312
verbena (*phañjī*) Clerodendrum serratum, L. See AVS: 2, 121, ADPS: 87 : 132
vetiver (*uśīra*) Chrysopogon zizanioides (L.) Roberty, also called "khus." NK: 1, #180, GVDB: 54 identify it as vetiver : 78, 131, 176, 312
vetiver and lemon grass (?) (*uśīre*) "the two uśīras," perhaps vetiver (*uśīra*) and lemon grass (*uśīrabheda*) : 200
viburnum (*tilva*) see viburnum (*tilvaka*) : 192
viburnum (*tilvaka*) Viburnum nervosum D.Don. In their thoughtful article, T. B. Singh and Chunekar (GVDB: 185–186) separate *tilvaka* from *lodhra*, a conflation they attribute to Dṛḍhabala. They identify V. nervosum because of its use under a similar local name in Garhawal and Gangotri and the match with its purging properties mentioned in ayurvedic literature. AVS: 5, 219 makes the same separation, noting that in Kerala the plant Jatropha curcas L. is used. But that is a native of the new world. Cf. many Viburnum varieties listed by Griffiths (IGP: 1200 ff.). POWO confirms that V. nervosum has an appropriate Himalayan distribution. *Tilvaka* is also sometimes wrongly considered to be a synonym of long-stamen Wendlandia (?) (*tilaka*), GVDB: 185–186 : 99, 198, 304, 312
viburnum extract (*tailvaka*) see viburnum (*tilvaka*), GVDB: 185, also a ghee compound of viburnum (*tilvaka*) : 214
'Virāṭa's plant' (*vairāṭaka*) unknown. See ? : 140, 142
water snowflake (?) (*kumudavati*) see water snowflake (?) (*kumudavatī*) : 140
water snowflake (?) (*kumudavatī*) This is an unidentifiable plant whose name means, etymologically, "with lilies."

MW: 292 gives Nymphoides indica (L.) Kuntze (formerly Villarsia indica) on no authority; I have used the common name of N. indica as a possiblity, but this is not known to be poisonous; on the contrary, it is used medicinally (Khan et al. 2018). N. indica is illustrated on p. 6 of the Voynich manuscript. Khan et al. (2018) assert that this is the same plant as *tagara*, although this is not a widely-held view (see crape jasmine (*tagara*)) : 139, 296, 312
watered buttermilk (*udaśvit*) MW: 183 : 130
weaver's beam tree (*mokṣaka*) see weaver's beam tree (*muṣkaka*) : 313
weaver's beam tree (*muṣkaka*) Schrebera swietenioides, Roxb. See AVS: 5, 88, Lord, NK: 1, #2246, GVDB: 242–243 : 101, 152, 313
weaver's beam tree (*pāṭalī*) usually a synonym for crimson trumpet-flower tree (*pāṭalā*), but T. B. Singh and Chunekar (GVDB: 242–243) argue that it is weaver's beam tree (*mokṣaka*) because some authors distinguish two colours (unlike *pāṭalā*) : 101, 197, 200
weaver's beam tree (*viśalyā*) Schrebera swieteniodes Roxb. ← *kuberākṣī*. T. B. Singh and Chunekar (GVDB: 371) notes that this name is a synonym for many other plants, including *lāṅgālī, indravāruṇi, guḍūcī* etc. Ḍalhaṇa identified it with *pāṭalā, kāṣṭhapāṭalā*, and *agniśikhā* tree, all of which may be called *śvetamokṣaka* or *kuberākṣī* : 181
weevil wort (*tālamūlikā*) GVDB: 178–179 : 313
weevil wort (*tālapatrī*) → *tālamūlikā*, weevil wort, q.v. GVDB: 178 : 183
white babool (*arimeda*) Acacia leucophloea, (Roxb.) Willd. See AVS: 1, 23 : 44, 198
white calotropis (*alarka*) Calotropis procera, (Ait.) R. Br. See NK: 1, #428, Chopra: 46b, Chopra IDG: 305–308 : 53
white clitoria (*śvetā*) Clitoria ternatea, L. See AVS: 2, 129, NK: 1, #621. GVDB: 416–417 notes that there are two types, *kṣudrā* (white, according to Ḍalhaṇa) and *mahā* (blue, according to Ḍalhaṇa). Sometimes given as a synonym for winged-stem canscora, but sometimes as a contrasting plant : 131, 182, 191, 194, 199, 311
white cutch tree (*somavalka*) Acacia polyacantha, Willd. See AVS: 1, 30, IGP 7, GJM1: 602, AVS: 2, 935; *pace* NK: 1, #1038 : 132, 152
white dammer tree (*sarja*) Vateria indica, L. See NK: 1, #2571, AVS: 5, 349 f, AVS: 1, 292 f, Chopra: 253a. T. B. Singh and Chunekar (GVDB: 424) discussed whether this term might be broadened to any resinous tree and decided against : 44, 77, 308, 313
white dammer tree (*sarjja*) see white dammer tree (*sarja*) : 197
white lotus (*puṇḍarīka*) see sacred lotus (*padma*), GVDB: 252 : 142
white sandalwood (*bhadraśriya*) Santanlum album Linn. See white sandalwood (*bhadraśrī*) : 106, 200
white sandalwood (*bhadraśrī*) Santanlum album Linn. see sandalwood (*candana*) GVDB: 152, 282 and *Carakasaṃhitā* ci.4.102 (Ca 1941: 434) where it is contrasted with *lohitacandana* : 79, 313
white siris (?) (*kapītana*) T. B. Singh and Chunekar (GVDB: 72–73) note that this stands for at least two plants, milky and non-milky. For the latter type, they propose Albizia procera (Roxb.) Benth., Thespesia (hibiscus-like, but not endemic to S. Asia) or Spondias (cashew). Six different identifications are made by Monier-Williams et al. (MW: 251), without authority : 197
white siris (*kaṭabhī*) Albizia procera (Roxb.) Benth. or A. lebbeck (Linn.)

Benth. GVDB: 63–64, AVS: 1, 81–84. Cf. Cf. siris : 176, 310
white siris (*kiṇihī*) Albizia procera (Roxb.) Benth., GVDB: 98, which also discusses past confusions; NK: 1, #93 : 146, 182
white teak (*kārśmarī*) → *kāśmarī* : 215
white teak (*kāśmarya*) see white teak (*kāśmarī*) : 200
white teak (*kāśmaryā*) see white teak (*kāśmarī*) : 78
white teak (*kāśmarī*) → *kāśmarya, kārśmarī, madhuparṇī*. Gmelina arborea, Roxb. See GJM1: 543, Trees: 51, ADPS: 240, GVDB: 96–97 : 106, 108, 298, 314
white teak (*madhuparṇī*) → *kāśmarī* : 77
white water-lily (*kumuda*) Nymphaea alba, Linn., GVDB: 105 : 35, 200, 297
wild asparagus (*bahuputrā*) Asparagus racemosus, Willd. See further wild asparagus (*śatāvarī*) Possibly a syn. for *nandana*. The bark of wild asparagus is toxic : 132
wild asparagus (*śatāvarī*) Asparagus racemosus, Willd. See ADPS: 441, AVS: 1, 218, NK: 1, #264, IGP: 103, AVS: 4, 249 ff, Dymock: 3, 482 ff : 104–106, 108, 220, 314
wild celery (*agnika*) → may be *bhallātaka, lāṅgalī, ajamodā, moraṭa, or agnimantha*, GVDB: 4. Uncertain A plant often cited in *Suśrutasaṃhitā*, but rarely in *Carakasaṃhitā* (GVDB: 4). Ḍalhaṇa glossed it at 5.2.45 (Su 1938: 566) as *ajamodā* but noted that others consider it to be *moraṭa*. There is considerable complexity surrounding the identification of *moraṭa*/*mūrvā* itself and related synonyms (GVDB: 314-316) : 146, 314
wild celery (*ajamodā*) Apium graveolens, L. Sometimes identified with *agnika* (wild celery), q.v. : 146, 181
wild Himalayan cherry (*padmaka*) Prunus cerasoides D.Don, GVDB: 236, AVS: 4, 353–355. MW: 585 is wide of the mark : 106–108, 181, 182, 200
wild spider flower (*ajagandhā*) possibly Cleome gynandra L. (syn. Gynandropis gynandra L.); possibly also Basil (Ocimum basilicum Linn. or Crested Late Summer Mint (Elsholtzia ciliata Willd.) (GVDB: 6). But E. ciliata is not native to South Asia : 112
wild spider flower (*tailaparṇika*) see wild spider flower : 200
wild spider flower (*tilaparṇī*) Cleome gynandra L., GVDB: 184–185, but see the discussion of the other drug plants sometimes intended by this name : 314
wild sugar cane (*kāṇḍekṣu*) Saccharum spontaneum L., GVDB: 90 : 77
winged-stem canscora (*girihvā*) see winged-stem canscora (*girikarṇikā*) : 182
winged-stem canscora (*girikarṇikā*) sometimes → *śvetā*, in which case possibly Clitoria ternatea, L., see AVS: 2, 129, NK: 1, #621. Since *śvetā* and *girihvā* are cited as separate constitutents of one formula (e.g., *Suśrutasaṃhitā* 5.5.75 (Su 1938: 579) they cannot be the same plant. GVDB: 138–139 argued for Symphorema polyandrum Wight, which they also assigned to *sinduvāra*. When discussing *śaṅkhapuṣpī*, another possible synonym, Sivarajan and Balachandran (ADPS: 425–427) also suggest Canscora alata (Roth) Wall. (syn of Canscora decussata Schultes & Schultes f.) and Convulvulus pluricaulis Chois. The former has a more appropriate distribution and is chosen here : 314
winged-stem canscora (*giryāhvā*) see winged-stem canscora (*girikarṇikā*) : 313
Withania (*aśvagandhā*) Withania somnifera (L.) Dunal. See AVS: 5, 409 f, Dymock: 2, 566 f, 150, GVDB: 29,

Chevillard: 152 : 53, 100, 107, 182
wood-apple (*kapittha*) Limonia acidissima, L. See AVS: 3, 327, NK: 1, #1021 : 107, 131, 133, 183, 192, 193, 197, 214, 307
woody turmeric (*kāleyaka*) Coscinium fenestratum (Goetgh.) Colebr., GVDB: 95. See V. K. Gupta et al. 2015: 173–175 : 200
woody-fruited jujube (*gopaghoṇṭā*) Ziziphus xylopyra (Retz.) Willd. GVDB: 147 → *ghoṇṭā* : 198
yellow-berried nightshade (*kaṇṭakārī*) Solanum virginianum L. (syn. Solanum surattense Burm. f. and Solanthum xanthocarpum, Schrad. & Wendl.) GVDB: 68–69. See also IHR: 430. A component of lesser five roots : 303, 315
yellow-berried nightshade (*kṣudrā*) see yellow-berried nightshade (*kaṇṭakārī*), ADPS: 100, NK: 1, #2329, AVS: 5, 164 : 146, 147

Fauna

arala rat (*arala-animal*) a hapax legomenon in Sanskrit, probably a Dravidian loan word or cognate from forms like Pengo, Manḍa, Kuwi etc., *orli, urli*, etc., DED_2: #994 : 188, 190, 191
āvarttaka-insect (*āvarttaka*) unidentified insect : 206
bad-marked rat (*kuliṅga*) etymologically, "having bad-marks" MW: 286, but unidentifiable : 188, 191
beaked (*tuṇḍikerī*) neologism insect-name based on the etymology of *tuṇḍa*. Probably *tuṇḍikera* and *tuṇḍicela* are variants of the same lexeme. *ṭuṇḍa* is "Nicht überzeugend erklärt" according to Mayrhofer (EWA: 1, 653), who refers to a possible non-Indo-European origin (ibid. v. 3, 249 on *tundikā, tundikerī* refers to plants only). But Burrow 1971: 544 derived the term plausibly from √*tud* "peck" : 206
bee (*bhramara*) bee or bumble-bee, MW: 769, etc. : 206
black drongo (*dhūmyāṭa*) Dicrurus adsimilis, Bechstein, Dave 1985: 63, 65, 199 : 128
black rat (*kṛṣṇa*) perhaps the widespread Black Rat or Common House Rat, Rattus Rattus L., BIA: 210 : 188, 190
black-beak (*kṛṣṇatuṇḍa*) unknown insect, name based on etymology; MW: 307. But possibly "black-belly" based on the lexeme *tunda*, **1**[#5858]CDIAL : 207
brown rat (*kapila-animal*) name from etymology; unidentified; see tawny rat (*aruṇa*) : 188, 191
bull (*vṛṣabha*) MW: 1012, etc. Bos taurus, Linn. : 128
celestial (*svarga-insect*) unknown insect, name based on etymology : 206
centipede (*śatapādaka*) the name's meaning is, "hundred-foot" MW: 1049, **1**[#12281]CDIAL : 206
chital deer (*pṛṣata*) Axis axis, Erxleben. BIA: 295–296. In *Suśrutasaṃhitā* 5.5.71 (Su 1938: 579) it seems to be specifically the musk that is meant. so the reference may be to the Musk Deer (Moschus moschiferus L.). But all species produce musk, so *pṛṣata* may also be simply Chital or Spotted Deer. See also IW: 93 : 128, 134, 182
chukar partridge (*cakora*) Alectoris chukar, J. E. Gray, Woodcock 1980: 45, distributed from NW India to Nepal and Assam : 128
civet (*mārjāra*) BIA: ch. 4 *et passim*, McHugh 2012 : 182
common crane (*kroñca*) Grus grus, Linn., Woodcock 1980: 47, Dave 1985: ch. 62 :

128

cone snail (*śambūka*) a bivalve or snail (MW: 1055), but presumably a poisonous one such as the cone-snail : 150

cook-fish insect (*pākamatsya*) unknown insect, name based on etymology. A kind of fiery insect according to Ḍalhaṇa on 5.3.5 (Su 1938: 567) : 150, 206

cricket (?) (*ucciṭiṅga*) The suggestion "cricket" is from Assamese *usaṅgā* and Bengali *cuiṅgā, ucuṅgā*, CDIAL: 1, #1645, although they are not venemous. Unlikely: a crab, MW: 173. The cricket may appear to have a sting, although it does not Maxwell-Lefroy 1909: 102 : 206

devout (*brahmaṇīkā*) unknown insect, name based on etymology : 206

droplet (*bindula*) unknown insect, name based on etymology. Ḍalhaṇa on 5.8.9 (Su 1938: 586) noted that some people read *viluṭa* instead of *bindula* : 206

drummer (*dundubhaka*) unknown insect, name based on etymology. But may be connected with a variant of *tunda*/*tund* "belly" **1**[#5858]CDIAL. **tunda-bhaka* might then mean "belly-croaker/puffer" : 206

enemy-liquor (*arimedaka*) unknown insect, name based on etymology. Perhaps a variant of *ali-* "bee", **1**[#716]CDIAL or *āla* "poison" **1**[#1352]CDIAL : 206

fidgety rat (*capala*) from the etymology of the word. Unidentifiable mouse or rat. It is probably too much of a stretch to connect it with Dravidian forms like Kui *superi* "shrew-mouse", DED_2: #2675 : 188, 191

fiery (*agni-insect*) unknown insect, name based on etymology. Cf. Marāṭhī *āghī* "a kind of stinging fly" **1**[#57]CDIAL : 206

five-venom (*pañcālaka*) unknown insect, name based on etymology : 206

fondling rat (*lālana*) based on etymology. An unknown rat or mouse : 188, 189

gajpipul rat (*vasira-animal*) unknown type of rat or mouse. "*Vasira*," equated with *gajapippalī* is usually the name of the liana Scindapsus officinalis (Roxb.) Schott (GVDB: 132, 362) (see gajpipul (*gajapippalī*)). Lianas are known for providing a habitat for many arboreal animals, including rodents. The vulgate *Suśrutasaṃhitā* reads *haṃsira* as the name of this rat : 188, 190

grey peacock-pheasant (*jīvajīvaka*) Polyplectron bicalcaratum, Linn., Dave 1985: 270, 273, 274, 281 : 128

hill myna (*sārikā*) Acridotheres tristis tristis, L., etc. See Ali and Ripley 1983: #1006, Dave (1985: 28 ff.), Woodcock (1980: 119) : 128

horned (*śṛṅgī*) unknown, based on etymology : 206

house gecko (*gṛhagoḍikā*) MW: 362, **1**[#4324]CDIAL. Hemacandra's *Abhidhānacintāmaṇi* (4.364) mentions that *gṛhagodhikā* and *gṛhagolikā* are synonyms (Rādhākāntā Deva 1876: 691a, *sub māṇikyā*) : 150

house shrew (*chuchundara*) Suncus murinus (Linnaeus, 1766), Wikipedia, BIA: 168–169 and plate 38. Probably a Dravidian loan word related to Tamil *cuṇṭaṇ*, "grey musk shrew," see DED_2: #2661 and CDIAL: #5053 : 188, 190

hundred-creeper (*śatakurda*) unknown insect, name based on etymology. Cf. *śarāvakurda* "creeping among dishes" (MW: 1057), apparently also the name of a snake : 206

hundred-kulimbhaka (*śatakulimbhaka*) unknown insect class. Perhaps centipedes : 206

iguana (*godheraka*) The गौधेरक is described in the *Carakasaṃhitā* as a four-legged snake born of a Indian monitor lizard

that is similar to a black snake and has several species (6.23.134 (Ca 1941: 577)). CDIAL: 1, #4286 identifies this as an iguana : 207, 317

Indian monitor lizard (*godhā*) Varanus bengalensis (Daudin, 1802), Reptiles: 58–60, ill. : 53, 134, 316

Indian peafowl (*mayūra*) Pavo cristatus, Linn., Woodcock 1980: 39 : 128

invincible rat (*ajita*) etymological meaning; unidentifiable : 188, 191

koel (*kokila*) Eudynamys scolopaceus, Linn., Wikipedia, Woodcock 1980: 66 : 128

lac (*lākṣā*) Kerria lacca (Kerr.). See GJM1: 445, NK: 2, #32, Varshney 2000. Watt (Watt$_{Comm}$: 1053–1066) is characteristically informative, and is definite about the antiquity of lac in India : 153, 182, 200

large Brown rat (*mahākapila*) from the etymology of the name, "large brown," perhaps a bandicoot : 191

large gecko (*galagoḍikā*) A poisonous insect, amphibian or reptile described in *Suśrutasaṃhitā* 5.8.29 (Su 1938: 588) as a biting creature that may be white, black, with red stripes or rings or spotted. It is described just after the iguanas (*godheraka*) and before centipedes. The name is unstable, e.g., गलगोलिका, गलदोडी, गलगोली. Cf. the remarks on geckos in note 480, p. 150. The similarity of names suggests that a गलगोडिका may be a non-domestic creature that looks similar to a domestic gecko. Cf. other IA parallels at CDIAL: 1, #4324, 4431, which point to a Dravidian origin for the lexeme (DED$_2$: #1125) and suggests "iguana." The tokay gecko (*Gekko gecko* (Linnaeus, 1758)) is a large gecko endemic to South Asia having a blue-gray skin with red or orange spots and speckles that may change according to its environment like a chameleon. Tokay geckos, especially males, are aggressive and territorial and can inflict a strong bite. However, many agamids and skinks are also endemic to South Asia, and have markings that could match the description of the *Suśrutasaṃhitā*. See further IW: 40, 135–136; Deuti 2020 : 82

leaf-scorpion (*patravṛścika*) unknown insect, name based on etymology : 206

legume-insect (*vaidala*) unknown insect, name based on etymology : 206

lentil insect (*masūrika-insect*) usually the name of a lentil or the "lentil disease," namely smallpox. But here, an insect : 206

little rat (*cikkira*) likely related to the Tuḷu "cikkeli, a small variety of mouse," and other Dravidian works related to Tamil *cikka* "small',' DED$_2$: #2495. See also CDIAL: #4779 on *cikka* "mouse or muskrat," from lexical sources, and #4781 *cikkā* "small" from Drav., Burrow 1948: #141 : 188, 190

little-voice (*alpavāca*) unidentified insect; possibly a wrong reading : 206

lotus-insect (*padmakīṭa*) unknown insect, name based on etymology : 206

maggot (?) (*kīra-insect*) unknown insect. See Lahndā, Panjābī, Bengali, Oriya *kīṛā*, etc., 1[#3193]CDIAL and similar forms in Bīhārī, Maithilī Bhojpurī, etc. Obviously a variant of *kīṭa* : 206

mole-rat (*kokila-animal*) Bandicota bengalensis (Gray & Hardwicke). Etymologically, "brown as a Kokila". CDIAL: #4324 relates *kokila* to *golaka* but it may more likely be a Dravidian loanword from *koko, kogi, koki*, meaning "small, little, young" DED$_2$: 2030. This is possibly supported by Kannada *kok* and Telugu *golatta, koku* for the mole-rat, reported by Prater (BIA: 205) : 188, 191

mongoose (*nakula*) Urva edwardsii or the often sympatric U. auropunctatus (small Indian mongoose, usually an eater of smaller creatures than snakes) (BIA: ch. 5), On mongooses and snakes, see IW: 112; BIA: 98–99 : 134, 182

mosquito (*maśaka*) a mosquito, gnat, gadfly or any stinging fly, MW: 793, **1**[#9917]CDIAL : 206

myna-face (*śārikāmukha*) unknown insect, name based on etymology : 206

noseless (*vināsikā*) unknown insect, name based on etymology : 206

outsider (*bāhyaka*) unknown insect, name based on etymology : 206

parakeet (*śuka*) Psittacula krameri, Scopoli (or P. eupatria or cyanocephala), See Woodcock 1980: 64 : 128, 192

picciṭā (*picciṭā*) unknown insect; etymologically perhaps similar to *piccaṭa* "squashed flat" (MW: 624) : 206

pigeon rat (*kapota-animal*) a rat "like a pigeon;" presumably of grey colour : 188, 191

pitcher-like (*kauṇḍinya-insect*) unknown insect, name based on etymology : 206

pot-nose wasp (?) (*kumbhīnāsa*) unknown insect, name based on etymology. Cf. the forms related to *kumbhakārī* "potters' wife" at **1**[#3312]CDIAL, including Assamese *kumārni* "mason-wasp," Hindī "wasp-like insect which makes a clay nest" : 319

pot-turd (*kumbhīvarcas*) unknown insect, name based on etymology (on *-varcas*, see *Mahākośa*: 1, 725 : 206

racket-tailed drongo (*bhṛṅgarāja*) Dicrurus paradiseus, Linn., Woodcock 1980: 123 : 128

rat (*unduru*) Also *undura* or *indūra* in some sources, including the vulgate. A common name for a rat or mouse in many S. Asian languages from Prakrit to contemporary, CDIAL: #2095, Menon 2014, where it is called "house mouse" : 188, 191

red-toothed shrew (*kaṣāyadanta*) see red-toothed shrew (*kaṣāyadaśana*) : 191

red-toothed shrew (*kaṣāyadaśana*) from the etymology of the word. Shrews in the genus Sorex (as well as others in the subfamily Soricinae) have red-pigmented teeth. Species in South Asia include Hodgsons's brown-toothed shrew (Episoriculus caudatus), the Himalayan water shrew (Chimarrogale himalayica), the Assam mole shrew (Anourosoricini assamensis) and the Giant mole shrew (A. schmidi) : 188, 318

river dolphin (*śiśumāra*) Platanista gangetica (Lebeck), BIA: 313–314, plate on p. 289, MW: 1076 : 201

she-ass insect (*gardabhī-insect*) unknown insect, name based on etymology : 207

sheep-insect (*urabhra-insect*) unidentified insect : 206

shining-like-grain (*kaṇabha*) unknown insect, name based on etymology : 206

slimy (*śleṣmaka-insect*) unknown insect, name based on etymology : 207

sonny rat (*putraka*) unidentified mouse or rat. Perhaps related to Dravidian forms like Pengo *puṭki*, DED_2: #4257 (itself perhaps just a form related to Tamil *poṭi* "little") : 188, 189

speckle-head (*citraśīrṣaka*) unknown insect, name based on etymology : 206

spotted (*paruṣa*) unknown insect, name based on etymology, which could be anything from dirty-coloured, stiff, or rough to shaggy : 206

stripy (*abhirājī*) unknown insect, name based on etymology : 206

swan (*haṃsa*) Cygnus olor, Gmelin, Dave 1985: ch. 84. As Dave says, "a generic term for a large part of the Anatidae family" including Swans, Geese, Ducks and Teals. The term needs to be translated variously according to the

geographical context of the usage. In the Himalayan region, "swan" is appropriate, but in more southerly peninsular India, "goose" is more likely. The dogmatism of Vogel 1962 is based on mainly southern observations and temple carvings. The discussion by Dave 1985 is nuanced and accurate : 128

sweet hoof (*nakha*) Unguis odoratus or Onycha, McHugh 2013, from which I adopt the name "sweet hoof." See especially McHugh's very interesting discussion about translating this term, pp. 56 ff. See also MW: 524 (on no authority) : 200

tawny rat (*aruṇa*) from the etymology of the word, perhaps Rattus norvegicus (Berkenhout, 1769), which is large, brown and common (it originated in central Asia and (likely) China, not Norway), and perhaps distinguishing it from the "large" ?? : 188, 191, 192, 315

tick-navel ? (*uṇḍunābha*) unknown. Etymologically, an insect with an *uṇḍu* for a navel. Conjecturally, perhaps *uṇḍu* is a loan from Tamil *antu* "small grey-winged insect found in stored paddy" (DED_2: #150). Possibly remotely related to Dravidian lexemes for "tick," *uḷuṅgu, uḍum, urūm, uṇṇi*, etc. DED_2: #591, #604. The vulgate of the *Suśrutasaṃhitā* reads pot-nose wasp (?) (*kumbhīnāsa*) "pot-nose" in place of this lexeme, q.v. : 206

tortoise (*kūrma*) Perhaps Geochelone elegans (Schoepff), Reptiles: 30 and plate, MW: 1076 : 201

viciṭiṅga (*viciṭiṅga*) unidenitified insect (not in MW) : 206

warding off (*vāraṇī*) unknown insect, name based on etymology. Cf. Oṛiyā *bāraṇī* "charm against wild animals or noxious insects" **1**[#11553]CDIAL : 206

white rat (*śveta-animal*) from the etymology, perhaps the Mus musculus, L.., although strictly, they are agouti not white. The whitetailed wood rat (*Madromys blanfordi*, Thomas) is brown but has a distinctive white end to its tail : 188, 191

worm-dish (*krimisarāvī*) unknown insect, name based on etymology. *śarāva* "dish, plate, etc." (MW: 1057) : 207

Minerals

ashes (*bhasma*) ashes, corrosive when wet : 140

cuttle-fish bone (?) (*phenāśma*) Hapax legomenon. Etymologically "foam-stone". Perhaps cuttlefish bone, or pumice (see Byrski 1981)? Dutt (Dutt: 38–42) conjectured that 'foam-stone' may be impure white arsenic obtained by roasting orpiment. : 140

orpiment (*haritāla*) Arsenii trisulphidum. See NK v. 2, p. 20 ff : 140

vermilion (*rakta*) speculative, based on *Mahākośa*: 1, 667, under *raktadhātu*, citing the *Dhanvantarīyanighaṇṭu* : 140

Glossary

character - *prakṛti*: 206

insect - *kīṭa*: 206

kalpa - procedure: 206

kīṭa - insect: 206

prakṛti - character: 206

procedure - *kalpa*: 206

Todo list

- Cite Paul Courtright, Ganesha book. . . . 19
- Can't be "sedation" . . . 45
- complete this thought . . . 63
- add footnote here . . . 64
- add refs to Divodāsa as king. . . . 64
- find out about uttarabasti . . . 77
- to what? . . . 78
- 29, 30 missing? . . . 81
- Problematic passage in the edition. . . . 81
- unsolved problem . . . 86
- Perhaps *kalka* here could also mean the *Terminalia Bellerica* (विभीतक). 98
- Perhaps *kalka* here could also mean the *Terminalia Bellerica* (विभीतक). 98
- Euphorbia Antiquorum (Antique spurge) . . . 101
- The webpage https://hindi.shabd.in/vairagya-shatakam-bhag-acharya-arjun-tiwari/post/117629 says that this verse belongs to the *Nītiratna*. I could not find this text. . . . 105
- The provisional edition should be modified accordingly. . . . 107
- There, Ḍalhaṇa comments that deliberation on *avapīḍa* had been done earlier when it was mentioned. Find that description to know more details. . . . 109
- Search for the section where the treatment of *ākṣepaka* is described. 110
- Make the first letter of sentence capital. . . . 110
- ? . . . 116
- ? . . . 116
- ? . . . 116
- (?) . . . 116
- Is Dh. the teacher of Su. elsewhere? . . . 126
- Cf. Arthaśāstra 1.21.8. . . . 127

I'm still unhappy about this verse. . . . 130
Mention this in the introduction as an example of the scribe knowing the vulgate. . . . 130
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