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Russian Words for Forest Trees: A Lexicological and Etymological Study

Introduction

There are two main types of forest trees that will be examined in this study: conifers, such as pine, fir and spruce, and broad-leaved trees, such as oak, beech and birch. In general, nut and fruit trees are not examined. The examination will show that many tree names have changed the object that they signify over time. The study will begin with the conifers, of which eight genera will be examined; there are many more broad-leaved trees to be studied. Some tree genera have two or more names in modern Russian. *Salix*, the willow, for example has at least ten names for various species, while *Ulmus*, the elm, has five and *Sambucus*, the elder, has only two. Most genera have just one name, but some names have changed the tree to which they refer over time. This is sometimes because the original speakers migrated to an area where the tree to which the word first referred was not present in the new area. Proto-Indo-European (PIE), the ultimate origin of a number of these tree names, was spoken in central and eastern Europe during 5500–3000 BC, a period corresponding roughly to the last two millennia of PIE unity. The east European area had a temperate climate. The river systems of southern Russia had scattered but large forests of pine and hardwoods (oak, linden, willow, hornbeam, maple, beech and elder). PIE speakers knew and used many trees and were fully aware of their properties.

The uses of the trees fall into four categories: food, tools, religious and miscellaneous. Some yielded food for early man and the animals which he hunted and domesticated. Trees serving as tools and weapons included the oak, used for spears, boats and perhaps bows. The ash and possibly the hornbeam were worked into spears, wagon parts and other implements needing durable wood. The yew and elm served for bows and the cedar for ships and oars. Willow osiers were woven and plaited, perhaps into baskets and fences. The Scots pine, spruce and fir were sources of resin, tar and similar products. Five trees were used in PIE religion: birch, linden, beech, yew and especially oak. The last had a link with fire, lightning, the sky and the high pagan god Perun.

In English and Russian most major tree names consist of or are derived from minimal radical elements, for instance *el'*, *buk*, *dub* and *fir*, *beech*, *oak*. When a basic term refers to a species or even a variety, like the Scots pine or the European beech, it is because that species or variety is the only representative of the genus in the given area. The generic level groupings of organisms tend strongly to be labelled with unitary or unproductive composite terms, whereas species, as in Linnaean botany, are labelled by binary expressions consisting of the generic name plus a single attributive term. This indicates the priority of the concept of genus.

Conifers

Philological evidence alone would suggest that any of the three main PIE conifer words (pine, fir and spruce) could have denoted simply 'conifer'. Palaeobotanical evidence (pollen counts) indicates that the fir was absent in the fourth millennium from the whole of the central PIE homeland. Firs were generally absent from central and southern Russia until well after the dispersal of the PIE speakers. Individual dialects developed fir terms after their westward expansion and the spread of the silver fir (*Abies alba*) during the Subboreal period. Spruce was also absent from the central PIE homeland during the fourth and third millennia. It expanded with pine, by which it was greatly outnumbered. Its pollen has been found in the southern Volga and the Pripyat'–Desna area. During the increased aridity of the Subboreal period it yielded to the beech and fir. Pine was present throughout the PIE homeland during the entire Atlantic period. Several species have been present in central and east Europe at least since the early Holocene. By far the most widespread and frequent was the Scots pine, which predominated in central and northern Europe during the Boreal period, extending along the southern rivers to the Black Sea.

The **Scots pine** (*Pinus sylvestris*), sometimes wrongly designated the Scotch fir, is called in Russian *sosna obyknovennaja*. The word for 'pine', *sosna*, is shared by Ukrainian (*sosna*) and Belarusian (*sasna* but more often *xvoja*) and also by the West Slavonic languages Czech, Slovak, Polish, Upper Sorbian (all *sosna*) and Polabian (*sūsno*). According to Vasmer (1976–80: s.v. *sosna*) and Černyx (1994: s.v. *sosna*) the word most probably derives from Indo-European **k'asnós* 'grey',

from the colour of its young branches; cf. Old Prussian *sasins* ‘hare’, Old High German *haso* ‘hare’, *hasan* ‘grey, shining’, Middle High German *heswe* ‘pale’, Sanskrit *çaçás* ‘hare’ (by assimilation < **çasás*), Latin *cānus* ‘grey’ (< **casnos*). However, the colour of young branches seems a tenuous reason to favour an origin from **k’asnos*. Trubačev (Vasmer 1964–73: s.v. *sosna*) thinks it is more likely from **sop-snā*, **sop-snъ* (cf. Polish dialect *sośnia*) < *sopěti* ‘breathe hard through the nose, blow’. Vasmer mentions the possibility that *sosna* comes from **sopsnā*, which may denote a resinous tree; cf. Latin *sapa* ‘must, new wine boiled thick’ (Andrews 1863: s.v. *sapa*), Old High German *saf* ‘sap’, Old Norse *safi* ‘sap of a tree’, Armenian *ham* ‘juice’ (< **sapmo*). Preobraženskij (1958: s.v. *sosna*) favours this derivation and compares Latin *sapor* ‘taste’, French *sapin*, Old French *sap* ‘spruce’, Latin *sapīnus* ‘pine or fir tree’, Welsh *sybwydd* ‘pine’ (literally ‘resinous tree’). Interesting from this point of view is the dialectal Russian *sósna* ‘sapwood of a tree’. The word *sosná* was originally connected with wild bee keeping; thus in the Pripyat’ Marshes *sasna* is only used for a hollow tree containing a hive of bees, *xvoja* being preferred otherwise. Wade (1996: s.v. *sosna*) plausibly suggests that it may be cognate with *sopet’*, referring to sounds emanating from a hollow tree with wild bees inside. The origin from **sopsnā* thus seems the most likely. Preobraženskij (1958: s.v. *sosna*) notes that *-sn-* in Lithuanian is a suffix used in forming tree names, such as *gluo-sn-is* ‘willow’.

The **silver fir** (*Abies alba*) is *pixta blagorodnaja* in Russian. The German word for spruce, *Fichte*, is often replaced by ‘red fir’ (*Rottanne*) and was borrowed into Russian to denote fir, *pixta* (see Vasmer 1976–80: s.v. *pixta*). In scientific nomenclature one species of fir is called spruce fir (*Picea abies*). The Scots pine is often called ‘fir’ in British English. There is thus a great deal of terminological overlap between common conifers. All PIE words of the coniferous group are limited to the spruce–fir–pine set and do not include conifers like cedar and cypress. This shows that Indo-Europeans since early times distinguished these three main conifers from all others (Friedrich 1970: 35). One wonders whether there was therefore a dearth of coniferous species in the PIE environment, or a lack of concern for conifers, or a drastic difference between the coniferous environment of the Proto-Indo-Europeans and the areas into which speakers of PIE dialects moved.

German *Fichte* comes from Old and Middle High German *fiuhta* and *viehtē* respectively, < Common Germanic **feuht(j)ōn*, which is cognate with Greek *peúkē* ‘fir’, Lithuanian *pušis* (without the *-t-*) ‘pine’. The Greek suggests an Indo-European root **peuk-* ‘prick, stab’ with a reflex in Latin *pungere* ‘prick, puncture’ (in view of the needles); cf. Greek *ekhepeukés* ‘sharp, piercing (thing)’. Related to this root are German *Punkt* ‘point’ and the taboo word *ficken* ‘fuck’ (Kluge 1989: s.v. *Fichte, ficken*). Less likely is borrowing from a West Finnic language like Veps, in which *píha* : *píhka* : *píhk* = ‘resin’ (Černyx 1994: s.v. *pixta*). There was an association of conifers with pitch, tar and resin. Friedrich (1970: 24–25) makes the root **pewk*’ or **pwk*’ ‘pine or spruce’ and also **pyk*’ ‘tar, pitch, pine, spruce’, seeing reflexes in Russian (and Old Church Slavonic) *pěklo* (*peklo*) ‘burning tar, pitch, hell’, Latin *pix* ‘pitch’, *picea* ‘pitch pine’ and Greek *píssa* ‘pitch’. He also distinguishes the root **pytw-* as in Greek *pítus* and Albanian *pushë* ‘pine’. Latin *pinus* ‘pine, fir’ may descend from **pīt-snus* and be related to the Greek. The Albanian may descend from **pīt-s-ja*.

The **Norway spruce** (*Picea abies*) in Russian is *el' evropejskaja*. The Russian word for ‘spruce’, *el'*, occurs with a different meaning (‘fir’) in other Slavonic languages. There is thus much confusion between the three most common conifer names (English ‘fir’ can denote any evergreen conifer and the Scots pine is often called ‘fir’, see Friedrich 1970: 31). As Slavonic examples, Bulgarian *ela* = Russian *pixta* ‘fir’, while Russian *el'* = Bulgarian *smърč* ‘spruce’. The other Slavonic cognates of *el'* all mean ‘fir’ and go back to Proto-Slavonic **edlā*, such as Ukrainian *jel'*, *jil'*, *jal'*, Serbo-Croat *jela*, Slovene *jel(k)a*, Czech *jedle*, Slovak *jedl'a*, Polish *jadła*, Lower Sorbian *jedla*, Upper Sorbian *jědla*. Vasmer (1976–80: s.v. *el'*) thinks the word is from an Indo-European root in *-o* of the feminine gender (**edhlo*) and compares it with Old Prussian *addle*, Lithuanian *eglė* (< **edle*) ‘fir’, Latvian *egle* (< **edle*) ‘spruce’, Latin *ebulus*, *ebulum* ‘elder’ (< Common Italic **eplo-s*, **eplo-m* < **edhlo-s*, **edhlo-m*; cf. Trautmann 1923: 66, 1910: 296; Cuny 1910–11: 327). Černyx (1994: s.v. *el'*) sees the Slavonic words as from Common Slavonic **jedlb*, **jedla*, from the Indo-European root **edh-* ‘sharp, prickly’ with the suffix *-l-* (Indo-European **-lō-*, **-lā-*). The root **edh-* existed in an *o*-grade **odh-* which is apparent in the Old Prussian *addle* and the Gaulish *odocos* ‘elder’ (Cuny 1910–11: 327).

Machek distinguishes another root for ‘spruce’, **smerka* (1954: 35) as in Czech *smrk*, dialect *švrk*, Slovak *smrek*, *smrečina*, *svrčina*, Polish *sm(e)rek*, *świerk*, Upper Sorbian *šmřek(a)*, Lower Sorbian *šmřok*, Russian *smereka* and the collective *smerčie*, Ukrainian *smerek(a)*, Bulgarian *smърч*, *smrika*, Serbo-Croat *smreka*, *smraka*, Slovene *smreka* (see Miklosich 1970: s.v. *smerkŭ*). The initial form **smerka* may be compared with German *Föhre* ‘pine’ < **perka*, with the alternation *p/m* and a mobile *s* in Slavonic. Not all of these words now refer to spruce; for example, Serbo-Croat *smreka* and Bulgarian *smrika* mean ‘juniper’, while Russian *smerčie* is a sort of coniferous tree mentioned in the Bible (1 Kings 19:4), where it is translated ‘juniper’ (see Dal’ 1912–14: s.v. *smerčie*).

The **cedar of Lebanon** and **Indian cedar** (deodar) are respectively *kedr livanskij* (*Cedrus libani*) and *kedr gimalajskij* (*Cedrus deodara*). The Russian for ‘cedar’, *kedr*, is derived from the Greek *kédros* ‘cedar, juniper’ and occurs in Old Church Slavonic as *kedrъ* in Ostromir’s Gospel book (Vasmer 1907: 241, 1976–80: s.v. *kedr*). The word also exists in Ukrainian as *kedr(a)*, Belarusian as *kedr*, Czech as *cedr*, Slovak as *céder*, Serbo-Croat as *kedar*, *cedar*, Bulgarian as *kedър*, Slovene as *cedra* (all ‘cedar’) and Polish as *keder*, *kieder* ‘type of larch’ (Preobraženskij 1958: s.v. *kedr*). From *kédros* comes Latin *cedrus*, whence the words in Slavonic languages beginning with *c-*, like Czech *cedr*. The origin of the Greek is not fully clear; it originally meant ‘juniper’ and may be from the Indo-European root **ked-*, as seen in Russian *kadit’* ‘burn incense’ and *čad* ‘fumes’, or from a similar Semitic root seen in Hebrew *qātar* ‘it smoked’, the original sense being ‘wood used for incense’ (Barnhart 1988: s.v. *cedar*). The Armenian word for cedar is *el-ew-in*. The proto-form was **el-w-n-*. The Proto-Slavonic cognate is **jalovъcbъ*, as in dialectal Russian *jalovec* ‘juniper’. There was a widespread tendency to confuse cedar and juniper because they have numerous similarities in the berries, wood and general appearance. One word may be used for both, or two similar words like Old Church Slavonic *smrěčъ* ‘juniper’ and *smrěča* ‘cedar’. The Greek *elátē* ‘pine, fir’, derived from **el-n-* plus the suffix *-tá*, corresponds to the Slavonic and Armenian.

The **European larch** (*Larix decidua*) is *listvennica evropejskaja* or *opadajuščaja*. Its name *listvennica* is derived from the adjective *listvennyj* ‘deciduous, leaf-bearing’ with the suffix *-ica*. It is probably short for *listvennoe derevo* ‘deciduous

tree' because its needles, unlike those of most conifers, are deciduous. The name appears to have been derived by dropping *derevo* from the adjective + noun phrase and adding *-ica* to the adjectival stem in the same way as in many plant names (see Cooper 2003: 105).

The **hemlock fir** or **hemlock spruce** is *cuga* or *gemlok*. *Cuga* is from Japanese *tsuga* 'larch' (Jaeger 1944: s.v. *tsuga*), while *gemlok* is a loanword from English *hemlock*, itself from Old English *hymlic(e)*, perhaps related to *hymele* 'hop plant', which corresponds to Old Icelandic *humli* and Old Church Slavonic *хѣмель* 'hop plant', all perhaps derived from Finnish *humala* 'hop' (Barnhart 1988: s.v. *hemlock*). The eastern hemlock, Canadian hemlock or hemlock spruce is *cuga kanadskaja* (*Tsuga canadensis*), while the western hemlock, hemlock fir or Prince Albert's fir is *cuga zapadnaja* (*Tsuga heterophylla*, see *Encyclopaedia Britannica* 1973–74: s.v. *hemlock*). It is worth mentioning here also Russian *psevdocuga*, literally 'false hemlock', especially *Pseudotsuga menziesii*, the Douglas fir.

The **Chile pine** or **monkey puzzle** is *araukarija* (*Araucaria araucana*), so named because it forms extensive pine-like forests in the Chilean province of Arauco. *Araucaria* is a genus of pine-like coniferous plants including the bunya pine *A. bidwillii* and the Norfolk Island pine *A. heterophylla* or *A. excelsa* (*araukarija vysokaja*).

The **Mediterranean** or **Italian cypress** is *kiparis večnozelenyj* (*Cupressus sempervirens*), while the Hinoki cypress is *kiparisnik* (or *kiparisovik*) *tupolistnyj* (*Chamaecyparis obtusa*). Russian *kiparis* is from Greek *kupárisos*, a Mediterranean word. *Kiparisnik* and *kiparisovik* are derivatives of it with the suffixes *-nik* and *-ovik*. The word is found in different forms in the other Slavonic languages: Ukrainian *kyparys*, Belarusian *kiparys*, Bulgarian and Serbo-Croat *kiparis*, Slovene *cipresa*, Czech *cypríš* and Polish *cyprys*. The last three come from Latin *cupressus*, *cyprissus* or *cyparissus*. It is not obvious why the Greek iota should appear as *e* in Latin (Meillet 1908–09: 162).

Broad-leaved trees

The Atlantic period (5500–3000 BC) was characterised by the appearance of hardwoods without parallel before or since; the deciduous belt in the former USSR was over 800 miles wide. The oak expanded mainly at the expense of the

elm, maple and ash. The beech spread in the Subboreal period (3000–800 BC), when the Indo-Europeans were migrating westwards and southwards. Most of the Caucasus stayed covered with beech forests. The shade-tolerant hornbeam first spread over most of south-eastern and eastern Europe and later advanced rapidly into western and central Europe, where it flourished as an understorey beneath beech and oak. Competitors like birch, alder, maple and elm were often reduced by the dense shade of oak and hornbeam. Tree names were sensitive to the migration of the speech community into a new region and to ecological change.

The **oak** includes the pedunculate or English oak (*dub čereščatyj*, *Quercus robur*), the sessile or durmast oak (*dub skal'nyj*, *Q. petraea*), the holm oak (*dub kamennyj*, *Q. ilex*) and the turkey oak (*dub avstrijskij*, *Q. cerris*). The oaks were first outnumbered by the elms and lindens, but by the middle of the Atlantic period they abounded in the Ciscaucasus and probably extended far north into the Cossack steppe. *Quercus* was the focal genus during the great hardwood growth of the middle and late Atlantic. During the Subboreal the oak yielded somewhat to the fir and beech. The line of the English oak begins in St Petersburg, runs to Vyatka in north European Russia and on eastwards to the Urals, then back to Saratov on the Volga and along the ecological boundary between the steppe and forest-steppe, and so on to south-east Europe and the Balkans. West of this zigzag line the oak is hardy. It is thought to have flourished the longest and impinged on man's economy the longest in the Caucasus.

The Russian word for 'oak', *dub*, is of Common Slavonic origin and occurs in various forms in the other Slavonic languages, e.g. Ukrainian, Belarusian, Czech, Slovak, Upper and Lower Sorbian and Serbo-Croat *dub*, Slovene *dob*, Bulgarian *дъб*, Macedonian *dab*, Polish *dąb* (genitive *dębu*; cf. Old Prussian *dumpbis* 'tan'). The original meaning was evidently 'tree', as in Polabian *jablkodąb*. Černyx (1994: s.v. *dub*) convincingly argues that the Slavonic word for oak derives from Indo-European **dheu-bh-* : **dhou-bh-* 'dark' (with a nasal infix) because of the dark-brown medulla of the tree (see also Wade 1996: s.v. *dub*). Somewhat less plausibly Vasmer (1976–80: s.v. *dub*) thinks the word is derived from **dombros* < **dom-ros*, which he sees as cognate with Greek *démō* 'I build', Old Norse *timbr*, English *timber*, Old High German *zimbar* 'wood for building, wooden structure, room' < Indo-European **dem-* : **dom-* 'build'. Oak was after all widely used

as building material. However, Falk (1958: 266) reconstructs an early Proto-Slavonic form **dumbâs* meaning ‘hollow (in a tree trunk), hollow tree’, which is a variant of Proto-Slavonic **dub* with a nasal infix, so that it goes back to Indo-European **dheub-* and its variants; cf. Polish *dub*, *dziub* ‘hollow in a tree trunk’, *dupa* ‘arse’, Russian *duplo* ‘hollow’. Lithuanian has a word formally equivalent to Falk’s reconstruction, i.e. *dumbas* ‘hollow, cavity’. Related words include Norwegian *dump* ‘hollow in the earth’, German *Tümpel* ‘pool’. It is not clear, however, why ‘hollow’ should be characteristic of oaks in particular. Less plausible also is a link between *dub* and German *Tanne* ‘fir’, Old High German *tanna*, via Indo-European **dhan-bhos*, as suggested by Holub and Kopečný (1952: s.v. *dub*); cf. Indic *dhanuh* ‘bow’ (oaks were used in making bows), *dhanvana* ‘fruit tree’ and Proto-Germanic **danwō* ‘oak, pine’.

There is another root originally denoting ‘oak’ that appears in Slavonic, but it now denotes ‘tree’ in general. This is **dorw-* : **derw-* : **drw-*, which gives Russian *derevo* ‘tree’ and *drova* ‘firewood’; compare Middle Welsh *derw-en* ‘oak’, Sanskrit *drus*, *drumas* ‘tree’, Greek *drūs* ‘oak, any timber tree’, *dōru* ‘plank, timber’, *dru(w)ās* ‘wood nymph’, Old English *trēo* ‘tree’ (< **drew*), Gothic *triu* ‘tree’, Albanian *dru* ‘log’, Russian dialect *drom* ‘dense forest’, Old Irish *derucc* ‘acorn’, *daur* ‘oak’, Latin *dūrus* ‘hard’, Cornish *dar* ‘oak’, Lithuanian *derva* ‘resin’ (Friedrich 1970: 140, 143). Of all the tree names it is the most solidly attested. The many reflexes in various Indo-European languages indicate the full range of ablaut variation in the vocalism of the root. For example, each of the following variants has two or more reflexes in two or more of the daughter languages: **derw-*, as in Russian *derevo* and Middle Welsh *derw-en*; **dorw-*, as in Sanskrit *dāru* and Greek *dōru*; **drw-*, as in Greek *dru(w)ās*; **drew-*, as in Old English *trēo*; and with an additional *n* element, as in Albanian *drû*, *drûni* ‘beam, piece of wood’ and *dry*, *dryni* ‘wooden peg’. Some languages illustrate three vocalisms, e.g. Russian *derevo*, *zdorov* ‘healthy’ and *drova*. Friedrich (1970: 140) uses **dorw-* as a symbol for the entire cluster of forms.

An apparent reflex denoting ‘pine’ occurs in Indic, sometimes alone, as in *dāru* ‘species of pine, block of wood’, sometimes as a second element meaning ‘tree, wood’, as in *dēva-dāru* ‘godly tree’. The ‘pine’ meaning is carried wholly or in part by the *pītā* in *pītā-dāru* ‘kind of pine tree’. Some Baltic derived forms with coniferous meanings, such as *derva* ‘tar’ but also ‘log, piece of pine wood’, are greatly exceeded by widespread reflexes in Germanic languages which indicate

that the conifer–tar association is very ancient. On the basis of these reflexes it has been argued that the original meaning of **dorw-* may have been a conifer of some kind. Semantic correspondences to the root **dorw-* include also ‘hard’ (because wood is hard). It has been argued that early Indic *dāru* was a Himalayan spruce, with particularly hard wood; the same form also meant ‘bronze’. Reflexes of **dorw-* can also denote qualities such as ‘hale, firm, tough, strong, true, brave’, e.g. Armenian *tram* ‘firm, fixed’, Welsh *drud* ‘brave’, Lithuanian *drutas* ‘strong, stout’, Avestan *drvō* ‘hale’, Latin *dūrus* ‘hard’, Greek *droón* ‘firm, strong’, and of course Russian *zdorovyj* ‘healthy’. Germanic has a large set of reflexes meaning ‘true’, as in Old Norse *trū* and Old High German *trūen*, as well as notions of trust and loyalty, like Gothic *triggw-s* ‘belief’, *triggwa* ‘agreement, contract’; cf. Old Prussian *druwi* ‘belief’ and the parallel between Old Icelandic *draustr* ‘sureness, confidence’ and Iranian *durust* ‘true’.

In examining which of the two major hypotheses regarding the original sense of **dorw-* (tree or oak) is the more likely, one must first note that ten language stocks have at least one reflex with the meaning ‘tree’ or ‘wood’, e.g. Germanic, Greek, Baltic and Slavonic. Tocharian A and B have *or* ‘wood’, Avestan *draoš* meant ‘of the wood’, Vedic *dāru* frequently has the sense ‘wood’, while *druma* means ‘tree’. Albanian *dru* means ‘wood, tree, post’, *druvar* is ‘woodsman’, while *drushk*, a later diminutive, is ‘oak’. Hittite *taru* means ‘wood’. The primary sense of **dorw-* in Proto-Celtic was probably ‘oak’, as preserved in Old Irish *derucc* ‘acorn’, Old Irish *daur*, Cornish *dar* and Middle Welsh *derwen*, all meaning ‘oak’. Richer evidence comes from Greek, in which *dru(w)inos* means ‘oaken’, *druós* and *drūs* mean ‘oak’ and *dru(w)ás* is a ‘wood nymph’. The early Greeks appear to have believed in oak sprites. It seems likely that the sense ‘hardness’ would have developed from a sense ‘oak’, especially the hardest *Quercus robur*, which predominated in the PIE homeland. The wide distribution and rich formal differentiation of the reflexes may be a vestige of the importance of oak in the lives of the Proto-Indo-Europeans. As the oak or mixed oak forests contracted and speakers of PIE dialects migrated into new homelands (two simultaneous processes during the third and second millennia BC), the meaning of the **dorw-* reflexes shifted from ‘oak’ to ‘tree, wood, hardness’ and ‘fir, tar, pinewood’, the latter in Baltic and North Germanic dialects, since their speakers are thought to have migrated into northern coniferous zones during the time that oak was

receding. On the basis of this examination, it would seem that the ‘oak’ hypothesis is at least as plausible as its more usually accepted rival.

The **sweet chestnut** is *kaštan s"edobnyj* (*Castanea sativa*). The Russian word *kaštan* is derived by way of Polish *kasztan*, Czech *kaštan*, from German *Kastanie* or popular *Kastane* from Latin *castanea*, Greek *kástanon*, the origin of which is seen as the Armenian adjective *kaskeni* from *kask* ‘chestnut’ (Vasmer 1976–80, Preobraženskij 1958: s.v. *kaštan*). The **horse chestnut** is *kaštan konskij* (*Aesculus hippocastanum*). The botanical Latin *hippocastanum* literally means ‘horse chestnut’, from Greek *hippos* ‘horse’ and *kástanon* ‘chestnut’. The word for ‘chestnut’ takes various forms in the different Slavonic languages, e.g. Ukrainian and Czech *kaštan*, Polish *kasztan*, Old Church Slavonic *kostan'*, *kastan*, Slovene *kostanj*, Bulgarian *kosten*, *kesten* and Serbian *kesten* (Preobraženskij 1958: s.v. *kaštan*). The Serbian and Bulgarian come via Turkish *kestane*.

The European **beech** is *buk evropejskij* or *lesnoj* (*Fagus sylvatica*). Common Slavonic **bukъ* gives *buk* in Russian and most Slavonic languages, but not in Slovene and Old Czech *bukev*, Serbian *bukva* and Polish *bukiew* (as well as *buk*). Vasmer thinks it quite possible that *bukev* is the older form, with *buk* occurring by analogy with other monosyllabic tree names like *klěn*, *vjaz*, *grab* and *dub*. Otherwise two ancient forms must be accepted, both borrowed from Common Germanic (see Moszyński 1957: 63): **buky*, genitive **bukъve*, from **bōk-ō* and **bukъ* from **bōkaz* or **bōks*; cf. Old Norse *bók*, Gothic *bōka*, Old Saxon *bōka*, Old English *bōc* ‘beech’, Old High German *buohha*, German *Buche*, all related to Latin *fāgus* ‘beech’, Greek *fēgós* ‘kind of oak’, from the Indo-European **bhāg'os* (see Friedrich 1970: 25). Clearly Slavonic *bukъ* cannot have come from the Indo-European **bhā(u)g'o-*, which is the basis of Russian *buzina*, dialectally *buz* ‘elderberry’ (see Černyx 1994: s.v. *buzina*). Lithuanian *bukas*, borrowed from Belarusian, means both ‘beech’ and ‘elder’, and such fluctuation in tree names is not unknown. The connection of Russian *buz(ina)* with Indo-European **bhāg'os* : **bhā(u)g'o-* : **bhug'o-* is examined by Vasmer (1976–80: s.v. *buzina*). Common Slavonic **bъzъ* = Ukrainian *boz*, Bulgarian *bъz*, Serbo-Croat *baz*, Czech and Polish *bez*.

Another interesting relation of PIE **bhāg'os* is to notions of writing. Some early tribes may have used the smooth grey bark of beech for inscribing symbols.

Intimations of writing are strongest in Germanic, where at least some of the earliest reflexes, such as Old Norse *bok*, meant ‘letter, little stick for writing’. English *book* is related to Old English *bōc* ‘beech’, and Russian *bukva* ‘letter of the alphabet’ is similarly related to Gothic *bōka*, pre-Gothic *bōkō*, on the assumption that early inscriptions were made on tablets of beech wood. The Germanic meanings passed into Slavonic during the first millennium AD. Attempts have been made to link the Indo-European word with a root denoting nourishment, as seen in Greek *fágein* ‘eat’, and with Russian *bogat-* ‘rich’ and Indic *bhāga-* ‘property’ (Friedrich 1970: 109). This seems somewhat dubious.

Evidently the early Slavs lived in the area of the yew and beech, calling them *iva* and *baz* or *buz*, but when they moved east out of this area they began to apply these words to the willow and elder respectively (Moszyński 1957: 61). Certainly the Slavonic reflexes of PIE **bhāg’os* shifted their referent to various types of elder, such as *Sambucus nigra* (Russian *buzina čěrnaja*), *S. racemosa* (*buzina krasnaja*) and *S. ebulus* (*buzina dikaja*). These shifts were presumably facilitated by features shared by elder and beech, such as smooth light bark, bright green oblong leaves, and large round-headed spreading habit. As for the Baltic words such as Lithuanian *bukas*, they are thought by some to be eighteenth-century loans from learned Latin *sambucus*, with loss of the initial unstressed syllable, and by others to be borrowed from Slavonic, probably Belarusian. The latter origin seems the more likely. That the Lithuanian form means both ‘beech’ and ‘elder’ shows that Indo-European speakers in this region can treat the two genera (*Fagus* and *Sambucus*) as referents of a single term. Latin *sambucus* may derive from PIE **bhāg’os*, but this seems unlikely. It can be posited that PIE **bhāg’os* ‘beech’ shifted to include elder in Proto-Balto-Slavonic and was then dropped altogether in Proto-Baltic but contracted to ‘elder’ in Proto-Slavonic. This last change happened either after the Balts and Slavs moved north from their homeland or after the beech itself moved westwards during the aridity and cold of the Subboreal period.

Two species were involved in prehistoric times: the common or European beech (*F. sylvatica*) and the eastern or Caucasian beech (*F. orientalis*). The latter is one of the basic arboreal components of the Caucasus, present from the Tertiary period. During the Atlantic period it extended northwards into the Cossack steppe. Today it constitutes about a quarter of the Caucasian tree population. The common beech is a sensitive tree. By the Preboreal period it was present

on the lower Bug River and in the Carpathian area. During the late Boreal and early Atlantic, it expanded westwards into western Europe and eastwards into what is now Belarus' and west European Russia. By the middle of the Subboreal (about 1500 BC) the common beech was dominant or frequent in many areas from France to the Carpathians and formed, together with oak, the vast primeval forests of historic Gaul and Germania. Today it is restricted to an area west of a boundary from about East Prussia to Odessa. The scarcity or absence of beeches in the eastern Baltic area correlates with the absence of a reflex of **bhāg'os* in the Baltic languages.

The **willow** in Russian is normally *iva* (*Salix*) and includes the species crack willow or withy (*S. fragilis*, *iva lomkaja*), weeping willow (*S. babylonica*, *iva plakučaja* or *vavilonskaja*), goat willow or sallow (*S. caprea*, *iva koz'ja*, *bredina* or *rakita*), basket willow or common osier (*S. viminalis*, *iva korzinočnaja*, *belotal* or *loza*), sharp-leaved willow (*S. acutifolia*, *iva ostrolistaja*, *verba krasnaja*, *krasnotal* or *šeljug*), purple osier or purple willow (*S. purpurea*, *iva purpurnaja*) and the bay(-leaved) or laurel willow (*S. pentandra*, *iva pjatityčinkovaja* or *černotal*). The Russian word *iva* has cognates in other Slavonic languages, e.g. Ukrainian, Bulgarian, Serbo-Croat, Slovene and Slovak *iva*, Polish *iwa*, Czech and Upper Sorbian *jiva*, Kashubian *vjiva* and Polabian *jeivó*. Most of these denote 'willow' but Czech *jiva* means 'yew', though this may be under the influence of the German speech community. Also cognate are Lithuanian and Latvian *ieva* 'Prunus padus, bird cherry' (both willow and bird cherry have reddish wood), Old Prussian *iuwis*, *īwis* 'yew', Cornish *hivin*, Breton *iven*, Middle Irish *ēo*, Welsh *ywen* (Celtic **ivos*) 'yew', Old English *éoh*, *éow*, *īw*, English *yew*, Old High German *īwa*, Old Norse *ýr* 'yew', Greek *óa*, *óē*, *oiē*, *oúa* 'Sorbus' (< **oiwa*), Latin *ūva* '(bunch of) grapes, laurel berry' (with *ū-* from Indo-European **oi-*), Hittite *eyan*, probably denoting 'yew' not 'tree', and Armenian *aigi* 'vineyard' < **oiwiyā* (Černyx 1994, Vasmer 1976–80: s.v. *iva*; Friedrich 1970: 24–25).

Evidently the early Slavs lived in an area containing yew trees, calling them *iva*, but when they moved east out of this area they began to apply the word to willow (Moszyński 1957: 61). This may reflect an ancient shift by speakers living in eastern zones, from which the yew had withdrawn; fossil remains indicate that the yew was more widespread in prehistoric times. In some languages there is

a shift from ‘yew’ to the typical yew product ‘bow’ (both Old Norse *yǫr* and Old Irish *ibhar* can mean either the tree or the weapon). Meillet (1906–08: 478–479) makes the reasonable inference that the initial form was an *o*-stem of feminine gender (**eiwo-*). Common Slavonic **iva* is from Indo-European **eiwā*, while in some other languages the ‘yew’ word is derived from the parallel diphthong **oiwā*; the root **ei-* : **oi-* expresses the colour sense ‘reddish’ (Pokorny 1959: 297); cf. Russian *krasnotal*, *krasnaja verba* (Černyx 1994: s.v. *iva*). There is no basis for considering Russian *iva* a loanword from such Germanic words as Middle Low German, Middle Dutch *īwe*, *iewe*, *uwe*, Middle High German *īwe*, *ībe*, German *Eibe*, from Common Germanic **īhwās*, **īgwās*, **īhwō*, **īgwō*, although French *if*, Spanish *iva* and Medieval Latin *ivus* are from Germanic (*OED* 1971: s.v. *yew*).

As for semantic aspects of the ‘yew’ word, the first possibility is that the referents show different reflexes from what was originally a general term for any red-wooded berry-yielding plant, but these two phenomena seem inadequate for grouping forms of disparate habit, ranging from vine to bush to tree. Also the willow, denoted by most Slavonic forms, lacks berries. A second possibility, much more likely, is that members of this set derive from a PIE root meaning ‘coloured, red’ (**ei-*, as in Sanskrit *ei-to* ‘coloured’). A third possibility is that PIE **eiwo-* originally denoted one clear-cut class, probably the yew, which is the only referent in Celtic and Germanic, and the referent in at least one language in Baltic and Slavonic (Old Prussian and Czech). From this it shifts to willow, bird cherry and so forth on the basis of shared properties. These last two possibilities seem to account satisfactorily for the results seen in the languages examined.

The word *verbá* (as *vjarba*) has replaced *iva* as the general word for ‘willow’ in Belarusian, but in Russian it applies only to some species, such as sharp-leaved willow (*verba krasnaja*) and goat willow or sallow (*verba*). The form *verba* exists in Ukrainian with cognates in Bulgarian *vr̃ba*, Serbo-Croat, Slovene, Slovak and Czech *vrba*, Polish *wierzba*, Upper Sorbian *wjeřba* and Lower Sorbian *wjerba*. These are all related to Lithuanian *virbas* ‘stalk, branch, stem’, Latvian *virbs* ‘stick’, *virba* ‘rod’, Greek *rhábdos* ‘staff’, *rhapís* ‘rod’, *rhafís* ‘needle’, Latin *verbēnae* ‘laurel leaves and branches’, *verbera* ‘blows, lashes, rods’, *urbs* ‘town’ (i.e. a place surrounded by wattle fencing). Basically the sense is ‘rods for wattle-fencing, binding’ and the root is **wer-* ‘plait, bend, turn, twist’ > **wrb-* (Friedrich 1970: 56).

Another turning or twisting root for willow is **wyt-*, which gave Russian *vetla* ‘*Salix alba*’ (Vasmer says ‘*S. pendula*’), connected by alternation of vowels with *vetv’* ‘branch’, *vit’* ‘weave, woven object’ (Friedrich 1970: 24–25); cf. Lithuanian *žilvitis* ‘*Salix alba*’, Latvian *vituols* ‘willow’, Old Prussian *witwo*, Greek (*w*)*itēa*, Old High German *wida* ‘willow’, Latin *vītis* ‘grape vine’, Old English *wīthig* ‘withy, willow’, Old Norse *vīdir* ‘willow’ (Vasmer 1976–80: s.v. *vetla*; Friedrich 1970: 55). The verbal root for these nominal forms from **wyt-* is *wy-* ‘bend, twist’, as in Sanskrit *váyati* ‘wound’, Russian *vit’* and Lithuanian *vyti* ‘twist’. Most of the hundred-odd willow species fall into two groups, the osier or bush willows, e.g. the golden, purple and pussy willows, and the tree willows like the common *Salix alba*. The PIE **wyt-* and possibly **wrb-* may have denoted the osiers or the shoots of the tree willows, since all the reflexes involve some notion of weaving or bending. The willow probably came in with the birch and pine, spread during the moist and cold Preboreal period and was present all over the former USSR during subsequent millennia. The species present were probably *S. alba* and *S. vitellina*. The wide attestation of the two terms is very likely connected with the residence of so many PIE speakers along or near the great rivers of ‘southern Russia’, particularly the Dnieper, Don and Kuban’, as well as on stream banks, lake shores and swamps, all favoured habitats of this moisture-requiring tree. Given its wide distribution, from the tropics to the arctic, it is surprising that no more than two or three PIE roots can be reconstructed. An idea of its taxonomic richness is conveyed by Russian folk speech, in which about seven types of willow are designated by at least twenty-one names, most of them complex forms. Some of these will be examined next.

Šeljuga, which occurs also in Ukrainian, is an obscure word. A link with German *Sahlweide* ‘willow’ is implausible on phonetic grounds (Vasmer 1964–73: s.v. *šeljuga*), as is a link with Latin *salix*, Romanian *salce*. One should notice, however, the Old Norse *selja* and Danish *selje* ‘sallow’. A connection with Bulgarian *šile* and Serbo-Croat *šiljeg* ‘lamb’, as suggested by Moszyński on the basis of the well-known semantic association of willow catkins with lambs, is unlikely because the South Slav words are borrowed from Albanian. *Krasnotal*, *belotal* and *černotal* are compounds based on *tal* (also *tal’nik*), a dialect word for willow shrub borrowed from Turkic *tal* (see Ušakov 1935–40: s.v. *tal*; Tenišev 2001: 125); cf. Turkish *dal* ‘bough, branch’. Thus *krasnotal* means ‘red willow’, *belotal* ‘white willow’ and *černotal* ‘black willow’. *Bred* or *bredina* ‘willow’ is

according to Vasmer (1976–80: s.v. *bred*, *bredina*) a Pskov dialect word which goes back to the verb *brestj*, *bredu* ‘wade’ because the willow grows in damp places. It is unlikely to originate with Albanian *breth* ‘spruce, fir’. *Rakita* was originally *rokita* (the *-a-* appearing by *akan'e*), as it still is in Ukrainian. In the other Slavonic languages one meets Bulgarian, Serbo-Croat and Slovene *rakita*, Czech and Slovak *rokyta*, Polish *rokita*, Upper Sorbian *rokot* and Lower Sorbian *rokit(a)*. Proto-Slavonic **orkyta* is linked with Latvian *ercis* ‘juniper’, *ēršķis* ‘blackthorn’, Greek *árkeuthos* ‘juniper’. A link with Latin *arcus* ‘bow’, English *arrow*, is implausible, as is the suggested root **ork-* ‘stream’, giving Old Prussian *wurs* ‘pond’. Also unlikely is a link with Czech *rákos*, *rokos* ‘reed’ (Vasmer 1976–80: s.v. *rakita*). *Loza*, which in one meaning is applied to willow, occurs in Ukrainian, Old Church Slavonic, Bulgarian, Serbo-Croat, Slovene, Old Czech, Slovak and Polish. It is perhaps related to Lithuanian *lazda* ‘stick, hazel’, Latvian *lagzda* ‘hazel’, Old Prussian *laxde* ‘hazel’, Albanian *laithi* ‘hazel’, Armenian *last* ‘raft, boat’, although the phonetic relation is unclear (Vasmer 1976–80: s.v. *loza*). On the other hand there may be a link with *laz(it)*, *lézu* suggesting a creeping plant. A connection with Latin *larix* is implausible. It is also worth noting Persian *raz* ‘vine’ (Vasmer 1964–73: s.v. *loza*).

The **poplar** is *Populus*, in Russian *tópol'*. Similar forms exist in other Slavonic languages, e.g. Ukrainian *topólja*, Belarusian *tapólja*, Bulgarian *topóla*, Serbo-Croat and Slovene *topola*, Czech *topol*, Slovak *topol'*, Polish *topol(a)*, Upper and Lower Sorbian *topol*. The Slavonic word is cognate with Latin *pōpulus*, with dissimilation of *p-p* to *t-p*. It is related to Greek *pteléa* ‘elm’, *apellón* = *aígeiros* ‘black poplar’. Borrowing from Latin would be possible if one were to start from medieval Latin *papulus*, as in the case of Old High German *papilboun*, Middle High German *papel* ‘poplar’ (Vasmer 1976–80: s.v. *topol'*). The Romanian cognate is *plop* (< *plōp(u)lus*) and the Italian *pioppo*. The Common Slavonic is **topolb* (see Černyx 1994: s.v. *topol'*). The Latin may well be derived from the root **pel-* ‘grey’ (from the bark colour) with partial reduplication in Latin **pe-pel-*. Today three species of poplar (black, white and grey, *P. nigra*, *P. alba* and *P. canescens* respectively) abound in central and southern Europe. The quaking aspen *P. tremula* has for centuries been salient in the east and north-east of Europe. In much of southern Siberia the seeds, buds, twigs and shoots of *Populus* provide food, especially in winter, for many wild animals. It is likely that *Populus* was

well-known and economically important to both eastern and western Proto-Indo-Europeans in their Cis-Caspian–Caucasian and Ukrainian homeland area.

Osina denotes the aspen or *Populus tremula*. It occurs in Ukrainian as *osina*, *osika*, Bulgarian as *jasika*, *osika*, Czech dialect and Polish as *osa*, *osina*, Slovak as *osika*, Upper Sorbian as *wosa*, *wosyna*, Lower Sorbian as *wosa*, *wósa*, Serbo-Croat as *jasika* and Slovene as *jasika*, *jesika*. Proto-Slavonic **opsa* is related to Lithuanian *apušė*, *apušis* ‘aspen’, eastern Lithuanian *epušė* ‘black poplar’, Latvian *apse* ‘aspen’, Old Prussian *abse*, Old High German, Old Saxon *aspa* ‘aspen’ (with transposition of *-ps-* to *-sp-*), Old English *æspe* ‘aspen’. It is doubtful whether there is any connection with Greek *áspris*, *áspros* ‘sterile type of oak’, *Quercus cerris*, *aspís* ‘shield, defence’. The word was widely distributed in Indo-European (as **apsa*) because languages in southern Siberia borrowed it from an eastern Indo-European language, perhaps Iranian, or Armenian *op’i* ‘white poplar’; compare the Tobolsk dialect of the Tatars *awsak*, Altai and Teleut dialect *apsak*, Kumandu *aspak*, Chuvash *ěvės* (Friedrich 1970: 49; Vasmer 1976–80, Černyx 1994: s.v. *osina*). The PIE word was perhaps **asp(h)i-o*, **osp(h)i-o* (see Friedrich 1970: 51); cf. Sanskrit *sphyá* ‘shovel, oar’ (perhaps because early Indo-Europeans fashioned paddles from poplar).

Russian *osokor’* is the black poplar *Populus nigra* and, if Vasmer is to be believed (1976–80: s.v. *osokor’*), also the white poplar *P. alba*. However, Vasmer follows Dal’ in labelling the word as feminine, whereas most authorities make it masculine (see Ušakov 1935–40, Ožegov & Švedova 1998, Kuznecov 2000: s.v. *osokor’*). He gives the stress as *ósokor’* and notes that *osokór’* is northern and eastern Russian, though this stress is given as standard in the three authorities listed above. Vasmer notes that Gogol’ has *osokor* (cf. Ukrainian *osokír*, *jasokír*, genitive *osokóru*, *jasokóru*, and Belarusian *jasakár*). The word in *o-* probably goes back to *osina* ‘aspen’ and *kora* ‘bark’ (*osa* + *kora*). Forms in *ja-* are linked with Serbo-Croat *jasika* ‘aspen’ or with *jasnyj* ‘clear’, i.e. a tree with light-coloured bark. Moszyński (1957: 299) thinks *osokor’* easiest to explain if the original was *jasokor*, interpreted as ‘tree with light bark’ (‘drzewo o jasnej korze’); cf. Serbo-Croat *jas* ‘brightness, lightness’ and Czech *jas* ‘brightness’. This would give Common Slavonic **jas-ъka* (+ *kor(a)* = *jasokor*). Although applied now to black poplar, *osokor’* was once applied to white poplar, which was perhaps the original sense. A similar idea to the light (white) bark is seen in Old High German *albāri*, from Latin *albarus* ‘white poplar’. Moszyński points out,

however, that Pogodin derived *osokor'* from the sense 'tree with a bark similar to the bark of aspen': *osy* (= *osiny*) *kora*.

In the Russian recension of Old Church Slavonic there exists the collective noun *jagnjadbe* 'black poplars', which has cognates in Serbo-Croat *jagnjed*, Slovene *jagned* 'black poplar', Slovak *jahneda*, Czech *jehněda* 'white poplar'. Proto-Slavonic **agnędb* derives from *agnьcb* 'lamb' because the hairy seeds resemble a lamb's coat. One can scarcely accept a direct link with Greek *ágnos* 'chaste tree' (Vasmer 1964–73: s.v. *jagnjadbe*).

The **yew** is *Taxus*, in Russian *tis(s)*, as reflected in *tis jagodnyj*, the English yew *Taxus baccata*. Latin *taxus* (feminine) is matched by Proto-Slavonic **tisō* (masculine) because Indo-European **ks* normally gives Slavonic *s*, as also in *loso-* from **lak'so* 'salmon' (Friedrich 1970: 125). Similar forms exist in other Slavonic languages: Old Church Slavonic (Russian recension) *tisa* 'cedar, pine', Ukrainian, Czech, Slovak, Slovene *tis* 'yew', Serbo-Croat *tis*, *tisa* 'yew, larch', Polish *cis* 'yew', Upper Sorbian *ćis*, Lower Sorbian *śis* 'yew, juniper'. There is an obvious comparison with Latin *taxus* 'yew', Greek *tóxon* 'bow',¹ but the phonetics are odd. Attempts to explain this oddity suppose a long diphthong, but it may be a borrowing from an unknown language. Friedrich (1970: 125) posits an *o*-stem **tVk'so* (in which *V* denotes a vowel), leaving the gender and root vocalism open to question. Hofmann sees Greek *tóxon* as derived from Iranian *taxša-*, modern Persian *taxš* 'bow' (the weapon);² cf. Sanskrit *takshakás* 'name of a tree' (Vasmer 1976–80: s.v. *tis*). It has been suggested that *takša-* is from *takti* 'shoot', leading to the relevance to yew of this Iranian word being questioned by some scholars. According to Moszyński (1957: 24, 45–53) *tis* comes from **tīgs-*, which was borrowed from the form *tig-* in some Indo-European language, where it goes back to Indo-European **teg-*: **tog-* 'fat, thick', whence comes also Latin *taxus* (see Vasmer 1964–73: s.v. *tis*). An originally Greek word for 'arrow poison' appears as a Latin loan *toxicum* and may be related etymologically to

¹ The wood of the English yew was exploited for making bows by the early Celts and Teutons, and mainly for this reason European stands were depleted during the Middle Ages. The yew is not hardy east of a line from the Åland Islands to the mouth of the Danube, but does grow in parts of the Balkans (including Greece) and in northern Anatolia and the northern Caucasus, never in pure stands but together with spruce, beech etc.

² Iranian *taxša-* fits well phonologically: the cluster *xš* follows the rule that PIE *s* goes to *š* in Iranian after *k*, *r*, *y* and *w* and *k* goes to *x* before *š*.

the adjective for yew, *taxicus*. Several Latin authors such as Virgil mention yew foliage as poisonous to cattle and Caesar describes yew-leaf poisons being used for man. Although Greek *tóxon* is thought to represent ‘bow’ and not ‘yew’, a genetic connection between a word for arrow poison and the poisonous yew tree would reinforce an arboreal sense for *tóxon* (Friedrich 1970: 129).

The other Indo-European root for yew (now in Slavonic transferred to willow, as shown above) is **eiwā*, giving Russian *iva*. However, Czech *jiva* denotes ‘yew’ as well as ‘willow, sallow’, but Kluge reckons that this reflects influence of the German speech community (see Friedrich 1970: 121).

The **plane** is *Platanus*, in Russian *platan*, which is the London plane *P. acerifolia*, *platan klěnolistnyj*. The Russian is a bookish borrowing through French *platane* or directly from Latin *platanus* < Greek *plátanos* < *platús* ‘broad’, so named after its broad crown. It is recorded in dictionaries from the 1860s onwards (see Vasmer 1976–80, Černyx 1994: s.v. *platan*). There is also the Russian *činar(a)*, which is the oriental plane *P. orientalis*, *platan vostočnyj*, and derives from Turkish *çinar*, originating from Persian *chenár* (Vasmer 1976–80: s.v. *činar*, *činara*; Palmer 1931: s.v. *chenár*).

The common **hornbeam** is *Carpinus betulus*, in Russian *grab* or *grabina*, in Ukrainian *hrab* or *hrabyna*, in Serbo-Croat *grab* or *grabar*, in Slovene *grab*, *graber* or *gaber*, in Czech *hrabr* or *habr*, in Slovak *hrab*, in Polish *grab*, in Upper Sorbian *hrab* and in Lower Sorbian *grab*. It is often confused with spindle tree (*Euonymus europaea*) because of its similar wood (heavy, hard and elastic, difficult to work but ideal for tools, weapons and armour). The Slavonic words for hornbeam are related to Old Prussian *wosigrabis* ‘spindle tree, *Euonymus*’. Hornbeam is found in most of Europe, especially central, south-eastern and eastern areas (particularly the Carpathian Mountains). It is not hardy in northern Russia and east of a line somewhat east of the middle and northern Dnieper. Common hornbeam is the predominant species in the former USSR, with extensive growth in the Ukraine, where it is outnumbered only by pine and oak. Although during the Boreal period it was practically absent from European Russia, today its greatest concentrations are in the former USSR, as already noted.

The Slavs, Teutons and Balts tended to perceive the hornbeam and beech as similar, whence the use in some Slavonic dialects of *grab* to mean ‘beech’ and

of German *Buche* and some cognates to mean ‘hornbeam’. Lithuanian *skirpstas* can mean either (as well as ‘elm’). This and Lithuanian *skruoblas* ‘hornbeam’ have been doubtfully cited as cognates of PIE **grōbh-*. They may go back to Proto-Baltic **skrebr* denoting the hornbeam or similar trees. However, Berneker (1908–1913: 343) thinks the Slavonic is related to Lithuanian *skruoblas* (*skrob-lus*) if this is from **skrobrus* with a mobile *s-*. The reflexes of **grōbh-* are most clear in Slavonic (**grob-/grab-* may have been limited to Proto-Slavonic, from where it passed into neighbouring dialects such as Baltic and Greek). Such a Slav priority would be correlated with the physical prominence of the tree in the Carpathians, Ukraine and Caucasus. The Greek cognates are Macedonian Greek *grábion* ‘wood of a type of oak’, Modern Arcadian Greek *gábros* (*grábos*) ‘kind of oak’ and Umbrian *Grabovius* ‘god of the oak’, an epithet of Jupiter. If **grābh-* or **grōbh-* was borrowed into Greek, the most likely source would be South Slav dialects. Greek *graboúna* ‘large hornbeam’ might be native, but hornbeam is a rarity in southern Greece. Machek and Holub & Kopečný consider the Slavonic a loanword from a pre-Indo-European substrate (see Vasmer 1964–73: s.v. *grab*, *grabina*), but Preobraženskij dubiously mentions that it might be from Romance: Spanish *carpe* ‘hornbeam’ < Latin *carpinus* ‘hornbeam’. There is an obvious similarity between Latin *carpinus* and forms in *grab-* like *grabina* (**garbina*). There was perhaps a restructuring of *grab-* on the model of the Latin verb *carpo* ‘reap, harvest’ (Friedrich 1970: 102). It seems likely that the PIE form (*grābh-?*) for a beech-like tree (hornbeam?) shifted to denote a type of oak in Greek dialects, while retaining its original sense in Slavonic.

The **alder** is *Alnus* (e.g. *A. glutinosa*), in Russian *ol'xa*, dialectally *ělxa*, *eloxa*, *vol'xa*, *ol'sa*, *ol'sina*, *elšina*, *lešina*, in Ukrainian *vil'xa*, *il'xa*, in Bulgarian *elxa*, in Serbian *joha*, *jova* (< **jeoxa*), in Slovene *jelša*, dialectally *olša*, *jolša*, in Czech *olše*, in Slovak *jelša*, in Polish *olcha*, *olsza*, in Upper Sorbian *wólša* and in Lower Sorbian *wolša*. The PIE name was probably **alysō-* or **alysō-*, an ancient feminine *o*-stem. Proto-Slavonic had **jel'xa* alongside **ol'xa* (< Indo-European **elisā*, **olisā*), related to Lithuanian *alksnis*, *alksnys*, *alisknis*, *elsknis* ‘alder’, Latvian *elksnis*, *alksnis*,³ Old Prussian *alskande*, Old High German *elira* and by metathesis *erila*, German *Erle* ‘alder’, Old English *alor* and Old Norse *alr*

³ The *k* is secondary and the original form was **alisnis* and ultimately **alisko-*. The Lithuanian suffix is found in some other tree names, such as *gluosnis* ‘willow’.

(both from **alaru* < **aleru* and ultimately < **alizā*), Latin *alnus* (< **al(i)snos* or **alenos*). The Proto-Slavonic is related further to Old High German *ēlo* ‘yellow, fawn-coloured’ (Černyx 1994, Vasmer 1976–80: s.v. *ol'xa*). The Proto-Germanic **alizā* came from earlier **alisō*. Also cognate are Spanish *aliso* ‘alder’ (for which a Gothic **alisa* has been set up as the source) and Greek *áliza* (perhaps from **elisā*), glossed by Hesychius as *hē leúkē* ‘the white poplar’ (the light colour of the underside of the leaf is a conspicuous feature shared by the white poplar and white alder). The Indo-European root is **el-* : **ol-* : **el-* ‘brown, reddish’ (the wood of alder turns red when exposed to the air).

As regards the botanical referent of **alyso*, four species are involved: the grey, bearded, mountain and black alders. Some botanists argue that the grey alder (*A. incana*) has always been the most prominent species in the north. Today it is a generally northern and highland tree ranging from England to western Siberia and southwards into the Caucasus. Yet in both the Cis- and Trans-Caucasus the dominant species is the bearded alder (*A. barbata*). The mountain or green alder (*A. viridis*) has long been present in many highland zones of Eastern Europe. In Germany, Poland and European Russia the most frequent and widespread has probably always been the black alder (*A. glutinosa*), which is today found everywhere west of the Urals except southern Spain and the south-east Russian steppe. It seems particularly significant that the alder apparently flourished during the last millennium of the Atlantic period, which can be regarded as more or less equivalent to the last millennium of PIE unity. The alder flourished precisely in those ecological niches where, according to the best archaeological evidence, many PIE speakers preferred to live, i.e. in river bottoms, along river banks or in swampy depressions, sheltered from the winter winds. One cannot be surprised at the wide linguistic attestation of the alder.

The **birch** (*Betula*) is one of the few tree names with reflexes in Iranian and Indic. The former is reflected in Ossetian *bærz(æ)* < **barzā* and the latter in Sanskrit *bhūrjās*. Reflexes of the PIE form are well attested in Slavonic. The Russian is *berēza*, the Belarusian *bjaroza*, the Ukrainian *bereza*, the Serbo-Croat, Slovene, Bulgarian and Slovak *breza*, the Czech *bříza*, the Polish *brzoza*, the Upper Sorbian *brěza* and the Lower Sorbian *brjaza*. The Common Slavonic was **berza*. Cognate are Lithuanian *beržas*, Latvian *bērzs*, Old Prussian *berse*, Sanskrit *bhūrjās*, Old Norse *bjork*, Swedish *björk*, Danish *birk*, Old High German *birihha* :

birche, German *Birke*, English *birch*. Related are Albanian *bardhë* ‘white’ and perhaps *bredh* ‘spruce’ (the source of Romanian *brad* ‘silver fir’), Gothic *bairhts* ‘light, clear’, Old High German *beraht* ‘bright’, Old Norse *bjartr* ‘bright’, Latvian *birkstis* ‘glimmering’, Russian *berest* ‘species of elm’ (see Cooper 2003: 177), perhaps because elm bast is used like birch bark, Sanskrit *bhrājāte* ‘it shines’ and Latin *farnus*, *fraxinus* ‘ash’ (perhaps because of the absence of birch in this area) < **far(a)g(s)nos*. The Indo-European root is **bherǵ-*, signifying something light or shining (Barnhart 1988: s.v. *birch*), because the birch was named after the colour of its bark, which is white, creamy or silvery (the usual species referred to is the silver birch *B. pendula*). The Indo-European stem is a feminine *o*-stem **bherǵ'o* : **bherǵ'ā*. The birch, which has been a female-virgin symbol for many Indo-Europeans for over 5000 years (Friedrich 1970: 27), is cold-hardy and present in the northern hemisphere, mainly in temperate to arctic zones. Three species are important in the central and east European region: *B. pubescens*, *B. humilis* and especially the widespread and rapidly growing *B. pendula*.

The **elm** is *Ulmus*, in Russian *vjaz*, *il'm*, *berest*, *karagač* and *narvan*. For discussion of these words for elm, see chapter 11 in *Of Cabbages – and Kings* (Cooper 2003: 173–182).

The **box** is *Buxus* (e.g. *B. sempervirens*), in Russian *samšit*, derived from Persian *šamšād*, with which compare Turkish *şimşir* (*ağacı*) ‘common box (tree)’.

The **bay** (tree) or bay laurel is *Laurus nobilis*, in Russian *lavr blagorodnyj*. Russian *lavr* has counterparts in other Slavonic languages, such as *laŭr* in Belarusian, *lavr* in Ukrainian, *lavr* in Bulgarian, *lavor* in Serbo-Croat, *lovor* in Slovene and *laur* in Czech and Polish. It is recorded in Russian from the beginning of the eighteenth century (in dictionaries from 1731). Related are Italian *lauro*, *alloro*, Spanish *lauro*, *laurel*, French *laurier* (Old French *lor*) and English *laurel*; compare German *Lorbeer* ‘laurel’. Its original source is Latin *laurus* (Černyx 1994, Vasmer 1976–80: s.v. *lavr*).

The **ash** is *Fraxinus*, in Russian *jasen'*, especially *F. excelsior* ‘*jasen'* *vysokij'*’, the common ash. The other Slavonic languages have the word as well: Ukrainian *jasen*, Belarusian *jasen'*, Bulgarian *jasen* (dialectally *osen*), Serbo-Croat *jasen*, Slovene *jesen*, Czech *jasan* (dialectally *jasen*, *jeseň*, *jesen*), Polish *jesion* (obso-

lete *jasion*), Old Polish *jasień*, Upper and Lower Sorbian *jaseń*. The word was noted by Richard James (1618–19) as *yesn* ‘the ash tree’, evidently with a hard *-n*. The Common Slavonic was **jasenъ* : **jasenъ*, the root **jas-* being from **as-* < Indo-European **ōs-*. Bulgarian dialect *osen* goes back to Indo-European **ōs-*. The Indo-European stem is **ōs-en-* : **ōs-en-*, and in the Baltic languages the stem is *ōs-i(s)*, as in Lithuanian *uosis*, Latvian *osis*, Old Prussian *woasis*; compare Latin *ornus* ‘wild mountain ash’ (< **osenos*), Welsh *onnen*, Breton *ounnenn*, Old Irish (*h*)*uinnius* (Common Celtic stem **onna-* < **osnā-*). To Indo-European **ōs-/ōs-* with extender *-k-* belong Old High German *asc* (German *Esche*, earlier *Asche*), Old Icelandic *askr* (Icelandic *askur*, Norwegian, Danish, Swedish *ask*), Old English *æsc* (English *ash*). The Proto-Germanic was **askiz* (see Černyx 1994, Vasmer 1976–80: s.v. *jasen*’; Barnhart: s.v. *ash*). With the meaning ‘beech’ there are the related Greek *oxúā* : *oxúē* (stem **os-k-*) and Albanian *ah* (< **oskā*). The Greek was altered from earlier *oskía* by the influence of *oxús* ‘pungent, acid’. Classical Greek *oxúā* meant both ‘beech’ and ‘beechwood spear’. The ash illustrates well the link between the name of a tree and the products made from its wood; cf. also Old Norse *askr*, both the tree and the weapon, Latin *ornus*, both ‘spear’ and ‘mountain ash’, and *fraxinus*, both ‘common ash’ and ‘lance, javelin’. The common ash has a wide distribution from Ireland through western and central Europe and eastwards, well into northern middle Russia and the Caucasus. The prominence of *F. oxycarpa* in part of the PIE homeland opens the possibility that this species, and not *F. excelsior*, *F. ornus* or *Sorbus aucuparia* (mountain ash), was the original referent of PIE **ōs-*.

The **hawthorn** is *Crataegus*, Russian *bojaryšnik*, which is related to *bojarin* ‘boyar’ or, more accurately, to *bojarič* (whence *barič*) ‘son of a boyar’. Bulič sees the same word in dialectal Russian *barkí* (genitive *barkón*) ‘*Crataegus*’, from **bojarъkъ* (Vasmer 1976–80: s.v. *bojaryšnik*; Miklosich 1970: s.v. *boljarinŭ*).

The **elder** is *Sambucus*, in Russian *buzina* or *sambuk*, especially the common elder *S. nigra*, *buzina čěrnaja*. *Sambuk* is a bookish borrowing from Latin *sambucus* with the same sense (Vasmer 1976–80: s.v. *sambuk*), while *buzina*, or in dialect *buz(a)*, *boz* (see Dal’ 1912–1914: s.v. *buzina*), has cognates in other Slavonic languages, including Ukrainian *boz* (genitive *bozu*, *bzu*), *buzyna*, Bulgarian *bъz*, Serbo-Croat *baz*, *baz(d)a*, *zova* (< *bzova*), Slovene *bez*, *bezeg*, Czech *bez* (genitive

bezu, bza, bzu, bezinka, Slovak *baza, bazina*, Polish *bez* (genitive *bzu*), Lower Sorbian *bez, baz*, and Upper Sorbian *bóz* ‘lilac’. The word is considered to be related to Latin *fāgus* ‘beech’, Greek *fēgós*, Doric Greek *fāgós* ‘oak’, Old Icelandic *bók*, Old High German *buohha* ‘beech’, Gothic *bōka* ‘letter’, which are traced, in view of Kurdish *bûz* ‘elm’, Icelandic *beyki* ‘beech forest’, *beykir* ‘cooper’, back to a stem with a diphthong, Indo-European **bhāug-* : **bheug-* : **bhāg-* : **bhug-*; cf. also Lithuanian *bukas* ‘elder’, borrowed from Belarusian *buk* ‘beech’ (see Vasmer 1976–80, Černyx 1994: s.v. *buzina*). The Common Slavonic was **bъzъ* < **bŭzo*. In Russian one would expect *b(o)zina* (cf. dialectal *boz* alongside *buz*). The occurrence of elder only in the south of Russia and the Caucasus makes one think of an early borrowing into Common Slavonic from an Iranian source. A link with *buk* ‘beech’ as surmised by Vasmer following Walde & Hofmann is only possible if the name of beech varied in Indo-European and was not only **bhāg’os*, as Pokorný supposes (1959: 107), but was **bhā(u)g’os* in Slavonic territory. Moreover it is not clear why the name for beech should have been transferred to elder, which is so unlike beech. Both have fruit that in some cases can be eaten, but so do many other plants, as Černyx has pointed out (1994: s.v. *buzina*). Preobraženskij (1958: s.vv. *buzina, buz, boz*) gives a stem **bhā(u)g’-* for the Greek, Latin, Old High German and Gothic, **bheug’-* for *buz(in)a* and the Icelandic, and **bhug’-* for *bъz* and *boz*. The suggestion that the Slavonic derived from *buzg* < *busk* < *sbuk* is quite fanciful. For further discussion see the section on beech above.

The **sycamore** or sycamore maple is *Acer pseudoplatanus*, in Russian *javor*, which has cognates in other Slavonic languages, such as Ukrainian *javir*, Belarusian *javar*, Serbo-Croat *javor* ‘maple’, Bulgarian, Slovene, Czech, Slovak *javor*, Polish, Upper and Lower Sorbian *javor*. The Russian appears first in dictionaries in 1704. Its origin is obscure. One must assume that Common Slavonic **javor* comes from **avor* with iotization of the initial *a-* (cf. Old Church Slavonic *avorъ* ‘plane tree’). This form is close to some Germanic words, e.g. Old Danish *ær* (modern Danish *ahorn* is from German) ‘sycamore, maple’ < **ahir-*, but is a little further from Old High German *ahorn* (current German *Ahorn* ‘maple’) < **aχurna-*. The Germanic is linked with Swabian *ochær-* and Proto-Germanic **āhiro*, **ahiro*, but there is no firm basis for considering the Common Slavonic a loan from Germanic (Černyx 1994: s.v. *javor*). It is possible that Slavonic

javor, Latin *ācer* and Greek (in Hesychius) *ákarna* ‘laurel’ (alongside *ákastos* < **árkastos* ‘maple’) were all inherited from an unknown pre-Indo-European language in southern Europe (Machek 1957: 172). However, Vasmer (1976–80: s.v. *javor*) thinks the Slavonic originated from Old High German *ahorn* ‘maple’ or Bavarian dialect *āhor* ‘sycamore’. It does not belong to the oldest borrowings from eastern Germanic judging by *-v-* from *-h-* and also by the beginning of the word, if **ēhura* (: Danish *ær* ‘maple’) is reconstructed for Proto-Germanic. These Germanic words are linked with Latin *ācer* and Greek *ákarna*. Berneker thinks that the loss of *-n* in *Ahorn* came about because the Slavonic borrowing **avorn* was construed as an adjective in *-ьнъ*, on which basis the new noun **avorъ* appeared. Moszyński (1957: 37) wonders whether *javor* might have been borrowed from some Germanic word, with weakly expressed *-h-* changing to *-v-* (*āhor* > *āor* > *āvor* > *āvor*); compare Lithuanian *aornas* from Germanic *ahorn*. Friedrich postulates a PIE root **akVrno-* for the Greek, Latin and Germanic words (1970: 25–26, 65).

The **maple** is *Acer*, notably the sugar maple, *A. saccharum*; in Russian, maple is *klěn*, as in *klěn saxarnyj* ‘sugar maple’. The word occurs in other Slavonic languages, e.g. Ukrainian *klen(ь)*, Belarusian *klěn*, Bulgarian *klen*, Serbo-Croat *klen*, *kljen*, *kun* (< **klьнъ*), Slovene *klen* ‘variety of sycamore’ (maple is *maklen*), Czech *klen* ‘sycamore variety’, Slovak *klen*, Polish *klon*, Upper Sorbian *klon*, Lower Sorbian *klón*. The Old Russian (end of the 15th century) is *klenъ*. The Common Slavonic was **klenъ* and **klьнъ* (cf. Ukrainian *klen* and Serbo-Croat *kun*). Cognates can be found in Scandinavian and some other Germanic languages: Swedish *lönn*, Norwegian *lønn*, Danish *løn*, all with loss of initial *h-* (cf. Old Scandinavian *hlynr* alongside modern Icelandic *hlynur*),⁴ Low German *lōne* > *läne*, German dialect *Lehne* : *Lenne* ‘*Acer platanoides*’ (Old High German root *līn-* in *līnboum* : *līmboum*, reflecting a shift from initial *hl-* to *l-* about AD 800). Compare also Old Welsh *celin* ‘maple’, Old Cornish *kelin* ‘holly’. Old English has the same referents in *hole(g)n* ‘holly’ and *hlyn* ‘maple’. These two forms and Old Norse *hlynr* ‘maple’ go back to Proto-Germanic **hluniz*. In Latvian and Lithuanian there appears another formant (*-v-*): Lithuanian *klevas*, Latvian *klavs* ‘maple’. The Indo-European base is **kleno-* : **klino-?* (Pokorny

⁴ These and Old English *hlyn* ‘maple’ and *holen* ‘holly’ go back to Proto-Germanic **hluniz-* : **huli-* from Indo-European **kel-* : **kol-* ‘prick’ (Barnhart 1988: s.v. *holly*; Friedrich 1970: 65).

1959: 603; Černyx 1994, Vasmer 1976–80: s.v. *klěn*). PIE **klen-* was probably masculine and may have been a consonant stem in final *-n*, although the Baltic words indicate a *w*-stem. The original may have been a biliteral **kl* to which the *e*-grade of an *n*-extension was added. Friedrich (1970: 4, 65) thinks the words may go back to a (Pre)-PIE **kL-n-* where *L* stands for a liquid sonant.

The European maples are not very large in general. They are slow-growing and inclined to favour lowland areas and even swamps. The most widespread species is the common or field maple, *A. campestris*, which has been identified in Neolithic sites and extends today from England to the south-east Russian steppe and on into Asia. The area with the greatest growth of maples in the former USSR is the Bashkir republic.

The **spindle tree** is *Euonymus*, in Russian *beresklet*, though Dal' gives quite a few dialectal variants: *bereskled*, *meresklet*, *burusklen*, *beresdren'* and *bruslina*. Ukrainian has *beresklet*, *beryklet* and *bruslyna*, while Belarusian has *bryzglina*. Among the other Slavonic languages there are some with similar names for the spindle tree, e.g. Czech *brslen*, *brsníl* (Old Czech *brsniel*, *břslen*, *bršlen*), Serbo-Croat *bršlenka* and Polish (15th–16th century) *przmiel*, perhaps from *brsniel*. The Russian form is known from the 18th century and probably came into Great Russian from some southern or south-western source. *Euonymus*, especially *E. europaea*, is found in Russia mainly in the south-west. It is evidently connected with the old name for ivy among some Slavonic languages: Bulgarian *br̃šljan*, Serbo-Croat *bršljan* (cf. Old Czech *bršlen*). It is possible that the old name for ivy passed to spindle tree; some species of the spindle tree family are of the liana type. The Proto-Slavonic form could have been **br̃sk-* : **br̃sk-*; compare Latin *bruscum* 'excrecence on the maple tree', *ruscum* 'butcher's-broom', *Ruscus aculeatus*'. Absence of the change *e* > *o* after *l* in the Russian is perhaps explained by a Ukrainian origin for the word. The effect on its formation of some other plant names, such as *želtocvet* 'yellow rocket, winter cress', *Barbarea vulgaris* and *klěn* 'maple', is apparent (Černyx 1994: s.v. *beresklet*). Vasmer (1976–80: s.v. *beresklet*) gives also the dialect forms *beresbrek*, *brusklet* and *bružmel'* and notes that it is an obscure word which could well have originated from contamination of etymologically different names of the type *berěza*, *berest* and *brusnika*. Even reconstruction of the ancient forms presents difficulties; Vasmer proposes **bersk-* : **br̃sk-* (1976–80: s.v. *beresklet*).

The **lime** or **linden** tree is *Tilia*, in Russian *lipa*. There are cognates in other Slavonic languages, such as Ukrainian *lypa*, Belarusian *lipa*, Bulgarian *lipá*, Slovene, Serbo-Croat *lipa*, Czech *lípa*, Polish, Upper and Lower Sorbian *lipa*, and Polabian *leipó* ‘linden bast’. In the oldest Russian manuscripts only derivatives of the noun are found, but in Richard James (1618–19) we find *lipa*. The Common Slavonic form was **lipa*, with which one can compare Lithuanian *liepa* (: *lypa*), Latvian *liepa*, Old Prussian *lipe*. It is a Balto-Slavonic word (**lēipā-*) with no cognates in other Indo-European languages. It has no connection with Greek *alfalos* ‘genus of tree’ (Černyx 1994: s.v. *lipa* 1) in spite of Vasmer (1976–80: s.v. *lipa*), who also doubtfully relates it to Welsh *llwyf* ‘linden, elm’. Many etymologists link Common Slavonic **lipa* with the Common Slavonic verbs **lēpiti*, **lipati* and Lithuanian *lipti* ‘stick to’ on account of the stickiness (melliferousness) of the linden’s flowers and bark (Černyx 1994: s.v. *lipa* 1). **Lēpiti* (with *ě* of diphthongal origin) has an ablaut form **lǫpěti* and an iterative form **lipati* (cf. Russian *prilipat’* ‘stick’, *lipkij* ‘sticky’), whence the later Russian *lipnut’*, not to be confused with Russian *l’nut’* (< Common Slavonic **lǫpn-*). The Indo-European stem is **leip-* (: **loip-* : **lǫp-*) ‘rub with fat, stick’; compare the phonetically and semantically close Lithuanian *lipti* (with the first person singular *limpu*), Latvian *lipt*, Sanskrit *lēpayati* ‘sticks all over, rubs (with something)’, *liptá* ‘smeared, soiled’, *lipti* ‘ointment’ (Monier-Williams 1899: ad. loc.), Hittite *lip-* ‘smear, dirty’ and, more distant in meaning, Gothic *laiba* ‘residue’ (cf. *prilepok* ‘something stuck on’), Latin *lippus* ‘bleary-eyed’, Greek *lípos* ‘fat’ (Pokorny 1959: 670–671).

There is another Indo-European root denoting the linden or lime tree, **lentā*, which gives the Germanic reflexes Old High German *linta*, Icelandic *lind*, English *linden* and *lime* (altered from *line*) < Old English *lind*. These are related to Old Saxon *līthi*, English *lithe*, Danish *lind* ‘flexible’, to Latin *lentus* ‘pliant, sticky’, to Lithuanian *lenta* ‘board of linden wood’, to Albanian *lëndë* ‘wood, material’, from earlier *lentā* or *lendā*, and also to Russian *lutoxa*, *lutoška* ‘stripped young linden’, dialect *lut*, *lut’* ‘linden bast’ and *lut’e*, *lut’ě* ‘young linden grove ready for stripping bast’ (Friedrich 1970: 90–91; Dal’ 1912–1914: s.v. *lutoxa*).

The lindens are conspicuous for their sticky, viscous inner bark, fibre (or bast) and easily carved wood. They were present in the Caucasus and European Russia in the Preboreal, if not earlier, and were practically ubiquitous during the Atlantic period. They extended as far north as the Pechora River. In both central and eastern Europe *Tilia* declined rapidly during the late Atlantic and Subboreal.

This is usually attributed to the advance of its competitors, the spruce, beech and fir, but may also be due to depletions by man. Even during the Subboreal, however, the lindens were present in significant numbers and have persisted ever since. There are about 25 species, of which two stand out, especially *T. cordata*, with particularly high frequencies in central and northern Russia. Second in importance is *T. platyphyllos*, which has a more southern distribution, running through western and central Europe and on eastwards into Greece and the Crimea. In northern Russia it is *T. cordifolia* which ranks after *T. cordata*.

Linden is of great economic importance. Its soft odoriferous wood is a favourite of carvers, while the flowers have medicinal uses and yield oil valued as a food. The bast fibre (Russian *lyko*, *lub*) was a major item in the material culture of eastern European (especially East Slavonic) peasants, who used it for making baskets, mats and shoes of bast. One might therefore expect some linguistic corroboration in PIE, but this is hardly the case, though some evidence has been adduced. Greek *pteléa* might have been borrowed into Latin as *tilia* and certainly underlies Armenian *t'eli*. The Greek and Armenian mean 'elm'. Because its sticky bark was technologically important, the Proto-Indo-Europeans may have called linden 'the sticky one' or even 'the sticky elm' (cf. the American English 'slippery elm').

Conclusion

It is evident from this study how many tree names have changed over time the object that they signify. This can be seen by comparing several of the names that derive from original feminine *o*-stems (e.g. Greek *fēgós*, Latin *fagus*), which became *a*-stems in Germanic (Old High German *buohha*). Greek *fēgós* (Doric *fāgós*) is a type of oak, whereas Latin *fagus* is beech; the beech was not known in Greece proper. *Farnus*, *fraxinus* 'ash' is feminine, like all trees in Latin, but its original root was that of the birch, denoting brightness (cf. Latin *fulgor*, *flagro* and see under birch); it is related to Old High German *birihha* : *bircha* 'birch', Russian *berest* 'elm species', *berēza* 'birch'. Latin *ebulus*, *ebulum* 'elder' is of the same ultimate root as Old Church Slavonic *jela*, Russian *el'*, Old Prussian *addle*, Lithuanian *eglė* 'spruce'. This Latin represents the *o*-stem **edh-lo*, parallel to the Slavonic and Baltic *a*-stem **edh-lā* (cf. Polish *jodla*, Czech *jedla*). Russian has both *ilem* and *il'ma* 'elm', Polish both *ilm* and *ilma*, and Czech both *jilm* and

jilma because of the old feminine *o*-stem (cf. Latin *ulmus*). Old Norse has the masculine *álmr*, and Irish *lem* is also masculine. Celtic has the *o*-stem masculine *eo* (Irish), *yw* (Welsh) ‘yew’, as do some Germanic dialects, such as Old Norse *ýr* and Old English *ēow*, *īw*, in opposition to feminines in *-a*, such as Old Church Slavonic *jiva*, Russian and Serbian *iva*, Czech *jiva*, Latvian and Lithuanian *jeva*, Old High German *īwa*. Old Prussian has the masculine *inwis* (*iūwis*?). The *o*-stem feminine is seen in Latin *ūva* ‘grapes’ (with *ū* < Indo-European **oi-*) and Greek *óē*, *oiē* ‘*Sorbus*’; other languages have *o*-stem masculines or *a*-stem feminines (see Meillet 1906–08: 478–479).

Many, but by no means all, of modern Russian forest tree names are ultimately from PIE originals. For example, *sosna* ‘pine’ is possibly from **k’asnos* ‘grey’; *el’* ‘spruce’ from **edhlo* ‘sharp, prickly’; *dub* ‘oak’ from **dem-* : **dom-* ‘build’, **dheub-* ‘hollow’ or **dheubh-* : **dhoubh-* ‘dark’; *tis* ‘yew’ from **tikso* > Proto-Slavonic **tisō*, perhaps related to PIE **teg-* : **tog-* ‘fat, thick’; *grab* or *grabina* ‘hornbeam’ perhaps from **grābh-* or **grōbh-* ‘beech-like tree’; *ol’xa* ‘alder’ from **olisā* : **elysā* : **alysā*, from **el-* : **ol-* : **el-* ‘brown, reddish’; *berēza* ‘birch’ from the root **bherag-* (stem **bherag’o* : **bherag’ā* ‘something light or shining’); *jasen’* ‘ash’ from **ōsen* : **ōsen*; *klēn* ‘maple’ from a base **kleno* : **klino*; and *lipa* ‘linden’, ultimately from the stem **leip-* : **loip-* : **līp-* ‘rub with fat, stick’.

Some modern Russian tree names are borrowed from other languages. For example, *pixta* ‘fir’ is from German *Fichte* ‘spruce’; *kedr* ‘cedar’ from Greek *kedros* ‘juniper’; *cuga* and *gemlok* ‘hemlock fir or spruce’ from Japanese *tsuga* ‘larch’ and English *hemlock* respectively; *kiparis* ‘cypress’ from Greek *kupáris-sos* ‘cypress’; *kaštan* ‘chestnut’ from Armenian *kaskeni*, the adjective from *kask* ‘chestnut’, via Polish *kasztan* or German *Kastan(i)e* < Latin *castanea* < Greek *kástanon*; *topol’* ‘poplar’, probably from medieval Latin *papulus* with dissimilation of *p-p* to *t-p*; *platan* ‘plane’ borrowed (possibly through French *platan*) from Latin *platanus* < Greek *plátanos* < *platús* ‘broad’; *samšit* ‘box tree’ from Persian *šamshád*; *lavr* ‘bay laurel’ from Latin *laurus* ‘laurel’; and *javor* ‘sycamore’ probably from Bavarian *āhor* ‘sycamore’ via *āor* > *āwor* > *āvor*.

Some Russian tree names are formed using purely Russian resources. For example *listvennica* ‘larch’ is from the adjective *listvennyj*, in this context ‘deciduous’ from Russian *list* ‘leaf’. An original *listvennoe derevo* ‘deciduous tree (deciduous conifer)’ dropped the noun and added the suffix *-ica* to the adjective to give *listvennica*. *Bojaryšnik* ‘hawthorn’ is from *bojarič* ‘son of a boyar’.

The suffixes *-(n)ik* and *-(n)ica* are fairly widely used in forming plant names, especially from adjective + noun terms, by dropping the noun and adding the suffix to the adjective (see Cooper 2003: 87–88, 94).

Tree names are sensitive to migration of the speech community into a new region. Fluctuation in the meaning of tree names is not unknown. The early Slavs lived in the area of yew and beech, the Russians calling them *iva* and *buz(ina)*, but when they moved east they began to apply these words to respectively willow and elder. Thus *iva* < Indo-European **eiwā* : **oiwā* from **ei-* : **oi-* ‘reddish’ is now ‘willow’ (*tis(s)* is ‘yew’), while *buz(ina)* < **bhā(u)g’o-* is now elder (beech is *buk* from Common Germanic **bōkaz* or **bōks*). Russian *pixta* ‘fir’ is from German *Fichte* ‘spruce’ (‘fir’ is *Tanne* in German), whereas *el’* is ‘spruce’ in Russian but ‘fir’ in most other Slavonic languages. Common Slavonic **smerka* ‘spruce’ gave rise to some words which have changed their meaning to ‘juniper’, such as Serbo-Croat *smreka*, Bulgarian *smrika*, Russian *smereka*, and the Russian collective noun *smerčie*, a sort of coniferous tree mentioned in 1 Kings 19:4 and translated ‘juniper’. Juniper (Old Church Slavonic *smrěč*) is also very similar to cedar (Old Church Slavonic *smrěča*). Russian *beresklet* ‘spindle tree’ is evidently linked with the old name for ivy among some Slavonic languages, such as Bulgarian *br̃šljan* and Serbo-Croat *br̃šljan*. Perhaps the old name for ivy passed to spindle tree, some species of which are of the liana type.

Slavonic shows relative affinity in tree names to PIE. Some reflexes have shifted their meaning, usually to another tree; cf. the passage of **dorw* ‘tree’ (Russian *derevo*) to ‘oak’. These shifts presumably reflect powerful ecological or cultural forces. Slavonic is the closest to Friedrich’s reconstructed PIE arboreal system (1970: 166). All three divisions of Slavonic (East, West and South, represented by Russian and Ukrainian, Czech and Slovak, and Serbo-Croat and Slovene) show 100% support of at least one term in each of Friedrich’s eighteen PIE tree categories. The support is particularly strong in Slavonic reflexes of the PIE birch (Russian *berěza*), maple (*klěn*), yew–willow (*iva*), ash (*jasen’*), alder (*ol’xa*) and elm (*vjaz*), and is notably strong for names with otherwise weak support, such as aspen–poplar (*osina*), hornbeam (*grab*) and linden (*lipa*). To a greater degree than in any other language group Slavonic reflexes denote the same physical type of tree as one would posit for PIE. The widely branching and comparatively regular reflexes suggest that the speakers of the Common Slavonic period lived in an ecological (i.e. arboreal) zone similar to or identical with that of

the Proto-Indo-Europeans, and that since the Common Slavonic period speakers of the various Slavonic dialects have for the most part continued to occupy such an area. It is largely in historic times that the Slavs expanded into parts of the Balkans, northern Russia, Siberia and so on.

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