

Introduction

After contemplating the past few seasons of devastation in his realm, in 864 the west Frankish king Charles the Bald issued a capitulary at Pitres. This piece of legislation is remarkable for its repentant tone. In it Charles recognized failings of both the king and the community over which he ruled as the root cause of the recent troubles. Curiously, he expressed the failings in botanical terms. While he ordered several military and infra-structural innovations to counter the Vikings, Charles also noted that success depended on the prior eradication of “the thorns of vices, the stinging nettles of sins, and the hemlock of vanities.” Such choice of metaphors was by then customary in secular and ecclesiastical official documents. It reveals an ongoing engagement with undesirable plants and with their proper management in literate Carolingian culture.¹

This study surveys both the cultural theme of weeds in eighth- and ninth-century texts, and the growth of real weeds in the territories ruled by the Franks, in order to illuminate these plants’ surprisingly large role in the “Carolingian project.”² It shows that weeds stimulated thought and action more than most other components of creation. Weeds mattered so much to Carolingian writers for several reasons, beginning with the fact that it was so hard to delimit them. As simultaneously natural *and* cultural phenomena, they fit awkwardly into accepted understandings of the universe, and of that corner of it called the Carolingian empire. Weeds entwined human cultural norms and expectations so tightly with vegetable biological patterns that they challenged orderly taxonomies of the natural world and the hierarchies that Genesis had laid out for nature.

¹ “Capitula Pistensis” 1, ed. A. Boretius and V. Krause, *MGH Legum Sectio II* 2.2 (Hanover, 1893), 304: “spinas vitiorum et urticas peccatorum et cicutas vanitatis.” Voluntary public professions of contrition enhanced ninth-century rulers’ authority: M. de Jong, *The Penitential State* (Cambridge, 2009), 260–70. Other legal weed metaphors: “Concilium Cabillonense” 2, ed. A. Werminghoff, *MGH Legum sectio III* 2.1 (Hanover, 1906), 274; “Concilium Aquisgranense” 98, in *ibid.*, 377.

² M. Costambeys et al., *The Carolingian World* (Cambridge, 2011), 430.

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Carolingian grappling with and adaptation to weeds thus reflected these bad plants' fundamental ambiguity, or slipperiness.

Intellectually uncontrollable, weeds were also physically irrepressible, and so occupied a larger terrain than other organisms in God's creation. Unlike other negative environmental phenomena, such as ravening wolves, or landslides, or hailstorms, weeds were omnipresent. Wherever people went, they found weeds. Their "in-your-faceness" rendered them different from other God-ordained disasters. This insolence, and humans' grudging intimacy with them, meant weeds had far greater economic impact than sporadic natural hazards. Particularly in a Christian culture aware that weeds must be an instrument of divine communication, and probably chastisement, they attracted attention.³

Quietly persistent, ubiquitous, and demanding untold back-breaking effort to repress, weeds' liminal status between spontaneous creature and product of human activities like sin and agriculture lent them importance in the Carolingian imaginary. As a new imperial order arose in the eighth and ninth centuries, weeds' real sprouting in Frankish fields and gardens made them a matter of state, and goes some way toward explaining why Charles at Pîtres could think of no better expression of his anxieties about the disarray into which the state had fallen than to evoke weeds and weeding. Realms like his existed to create harmony, to ensure that human communities observed their roles and performed their duties in the world, and to enforce divine mandates so heavenly and earthly spheres were congruent. The endurance of plants no one liked, that hampered the attainment of legitimate human goals, and that even poisoned people, undermined rulers like Charles, who expected to maintain the kind of order that checked chaos and won divine favor, enhancing everyone's chances of salvation.

For about a century and a half (750–900), rulers, ecclesiastics, and exegetes in what this book considers Carolingian Europe doggedly tackled the problems raised by weeds. They did so with a characteristic zeal that justifies treating as a unit the texts and other cultural products generated in disparate parts of the empire Charlemagne assembled. The Carolingian state did not of course enforce cultural homogeneity from the North Sea to the Ionian one. On the contrary, despite considerable coherence in weed assessment in the period when members of the Carolingian dynasty held sway in much of what would later become France, Germany, Italy, and northern Iberia, multiple vegetable hierarchies prevailed throughout the empire. But whether they sat in Aachen, or

³ On early medieval constructions of natural shocks, hazards, and disasters, see T. Wozniak, *Naturereignisse im frühen Mittelalter* (Berlin, 2020).

Innsbruck, or Rome, literate people participated in a “discourse community” that the Carolingian hegemony supported.⁴ This community shared optimistic assumptions about the world and human activity in it that deeply tinged Carolingian-era texts and artifacts, including those related to botanical affairs.

This specifically Carolingian dedication to figuring out what weeds were doing on earth makes possible a culturally inflected environmental history of marginal plants in a specific place and time. For the exceptional literacy of the Carolingian elite, and the good survival rate of their writings, offers access to the European vegetable imaginary in ways that are unparalleled for the rest of the first millennium AD. It also affords glimpses into what weeds were up to on the ground, not just on parchment pages, since, however idealized, the literary weeds were linked to the real ones. And, as actual weeds are now knowable through archaeobotany, this study combines archaeological and textual insights to uncover the fulness of weed discourse in Carolingian Europe, while probing the relation of that discourse (what we might call Carolingian weedology) to agricultural practices in a period when these underwent significant change. Whether or not cultivators confronted the same challenges in a territory as vast as Carolingian Europe’s, from the heartlands of Neustria and Austrasia to the fringes of Provence and Tuscany they all managed insidious undesirable plants. In this sense, weeding worries united the Carolingian polity.

But since Carolingian written sources are so unusually abundant and various (of course by early medieval standards), it is the written word that receives most attention in what follows. For this reason, the Carolingian vocabulary pertaining to weeds is of special importance. It requires some preliminary consideration.

Early Medieval Words for Weeds

To deal effectively with weeds people need tools. Yet more than the weed-hooks, sickles, hoes, diggers, forks, clippers, tweezers, and, nowadays, sprayers, the most important tools for coping with weeds have always been lexical. For from the very moment when they begin to define weeds, humans require a vocabulary to confine and control them. Hence it is thought-provoking to realize that, unlike modern English – beneficiary as we shall see of Old English inventiveness – many other modern European

⁴ R. Kramer, *Rethinking Authority in the Carolingian Empire* (Amsterdam, 2019) shows how in eighth- to ninth-century Francia, under loose court supervision, a multivocal culture of negotiation was based on a common “mindset” that aspired to improve the world.

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languages lack a special term for undesirable plants. This poverty derives from Latin, which also had no word for weed, a condition that proud German agronomists of the nineteenth century ascribed to the ancient Mediterranean tongues being more archaic and rustic than the younger, more modern, and vigorous Germanic ones.⁵

Most of the vocabulary we know about that early medieval Europeans used to identify and discuss bad plants derives from texts, and hence is Latin, though a few inflections of vernacular Germanic and Romance languages entered into the toolkit of those whose ruminations on weeds survive. But for modern people the interest of the words Carolingian people used for weeds lies less in the linguistic pedigrees, the etymologies, they carry, than in the surprising differences between (at least Anglophone) modern and early medieval ways of talking about weeds. The lack of an abstract word encompassing all bad plants signals something of the elasticity with which the Carolingians approached the categorization of vegetation. Perhaps it reveals their sense that all plants were equally weedy and equally domestic; to them, it just depended on the situation.

In Latin, “herba” sufficed for all small forms of vegetation, whether economically useful or toxic (it contrasted with shrubs and trees, whose size and tougher external structure set them apart).⁶ “Herba” could be inflected in various ways to signal human evaluations, becoming “noxious herb” or “useless herb” when people perceived a plant as uncooperative or contrary to their interests; though his beloved *Aeneid* (2.471) did refer to “bad grasses,” Augustine was the first Latin writer (that I am aware of) to propose the more general grouping “bad herbs,” a formulation with a rosy future in the Romance languages but not overly popular in early medieval texts, particularly those of Carolingian date.⁷ Likewise, Latin allowed “healthful herbs,” “good herbs,” and even “celestial herbs” when the plants in question seemed to advance human well-being.⁸ Notker “the Stammerer”, writing toward the end of the Carolingian epoch, described the extraction of “nettles and noxious plants” from a garden setting, and

⁵ J. Ratzenburg, *Die Standortgewächse und Unkräuter Deutschlands* (Berlin, 1859), xxx. See also N. Clayton, “Weeds, People and Contested Places,” *Environment and History* 9 (2003), 302–6.

⁶ J. André, *Lexique des termes de botanique en Latin* (Paris, 1950), 160; J. Trumper and M. Vigolo, “Il perché della ‘malerbologia’,” in *Malerbologia*, ed. P. Catizone and G. Zanin (Bologna, 2001), 11–12.

⁷ Augustine, *Sermons pour la Pâque*, ed. S. Poque (Paris, 2003), 288: “herba mala.” The Old High German glossaries did contemplate “herba bona,” but it was a specific plant (fennel): “Das Pflanzenreich,” in *Die althochdeutsche Glossen* 3, ed. E. Steinmeyer and E. Sievers (Berlin, 1895), 558. See also Trumper and Vigolo, “Il perché,” 13 on the toxicity of Virgil’s “mala gramina.”

⁸ E.g. Sedulius Scottus, “Carmina” 14, ed. L. Traube, *MGH Poetae* 3 (Berlin, 1886), 161.

contrasted these “useless” plants to the “necessary” ones that would “grow more freely” once the garden was properly weeded with a special forked tool.⁹ But, however many qualifiers people added to them, plants’ essential neutrality remained fixed. There were few and situational differences among them, and in consequence modern speakers of French, Italian, Spanish, and even German, do not use specialized vocabulary to distinguish plants they don’t like, but inflect the neutral word for plant to signal their displeasure. Hence *mauvaise herbe*, *erbaccia*, *mala hierba*, *Unkraut*, and so on, terms in circulation since the high and late Middle Ages.¹⁰

In Carolingian literate culture, “herb” was a flexible term. Isidore of Seville, the erudite bishop who supplied early medieval Europe, and also Carolingian scholars like Hrabanus Maurus, with its most widely consulted encyclopedia, had left economic and moral evaluations open when he offered an etymology of the Latin “herba” that connected it to the word for field (“arvum”) by means of plants’ rootedness in the earth.¹¹ Closely following his lead, Carolingian lexicographers proclaimed “the name of herbs is thought to be inflected from the word for land, because herbs are fixed to the soil by their roots.”¹² By implication, good and bad plants were all basically “herbs” waiting patiently for a human opinion.

Virgil had muddled things a little for early medieval Latin readers when he used “herba” without qualifiers to mean weeds in his *Georgics* (1.69). It was an idiosyncrasy few other Roman authorities adopted. Thus, Pliny the Elder generally explained the nature of those “herbs” he treated in his massive *Natural History*, though he did very occasionally use an unqualified “herbis” to mean weeds.¹³ Similarly, the fourth-century agronomical writer Palladius, whose manuals demonstrably circulated in Carolingian libraries, could deploy plain “herbs” as weeds, and call weedy places “herbosis locis,” but tended to prefer “noxious herbs” when speaking of weeds.¹⁴ But as the

⁹ Notker, *Gesta Karoli Magni* 2.12, ed. H. Haefele, *MGH Scriptores Rerum Germanicarum* n.s. 12 (Berlin, 1959), 73, with “urticas et noxia” and “inutilia recrementa” contrasted to “usui proficua” and “holera necessaria.”

¹⁰ Low German does use “wêd”: *Oxford English Dictionary* 20 (Oxford, 1989), 76. See also Trumper and Vigolo, “Il perché,” 13–16.

¹¹ Isidore of Seville, *Etymologiae* 17.6.1.

¹² *Liber Glossarum Digital*, ed. A. Grondeux and F. Cinato (Paris, 2016) (<http://liber-glossarum.huma-num.fr>): “herbarum nomen ab arvis inflexum creditur, eo quod terris fixis radicibus adherent”; Hrabanus Maurus, *De Universo* 19.5, ed. J. Migne, *PL* 111 (Paris, 1864), 508.

¹³ Pliny, *Naturalis Historia* 18.16 (44), ed. C. Mayhoff (Stuttgart, 1967), 182–3 uses “internascentes herbas,” “reliquae herbae,” “ceteris herbis,” and once just “herbis,” to mean weeds (but in a passage about weeding lucerne fields that justifies this usage).

¹⁴ Palladius, *Opus Agriculturae* 2.9 considers “herbosis locis” weedy and “herbas” weeds, though in 2.10 he qualifies “noxious herbs.”

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Georgics were much consulted, and Rome's pre-eminent poet came to be seen as a supreme linguistic and botanical authority in the course of the first millennium, Virgil influenced some with his blithe and unspecified "plants" to signify weeds.

Among them was Walafrid Strabo when he composed what is probably the Carolingian period's most celebrated botanical text, the poem *Hortulus*.¹⁵ Strabo used the term "herbs" mostly in the technical sense of aromatic and medicinal plants (for instance of the rose, "winner of all herbs in strength and perfume"), yet was not averse to using the word without qualifiers for weeds awakened early by warm breezes after winter left his garden.¹⁶ Still, however charming Carolingian readers found Strabo's horticultural poem and its Virgilian echoes, on the whole post-classical Latin eschewed unqualified herbology, and most Carolingian writers did not follow the Mantuan poet in this regard. They added qualifiers when they referred to bad plants.

Carolingian ambivalence toward "herbs," and the Frankish recognition that plants could lean in several epistemological directions, did not translate precisely in all early medieval cultures. The *Oxford English Dictionary* suggests that the first occurrence of the Old English "weod," the ancestor of modern English weed, appears in the Alfridian translation of Boethius' *Consolation of Philosophy*, a work people at the court of Wessex at the turn of the tenth century found relevant because it advocated a certain indifference to the vicissitudes of this world.¹⁷ In *The Consolation's* third book, Philosophy launches her first song with an account of the plants that get in the way of anyone who wants to grow grains: they are "frutex," "rubus," and "filix."¹⁸ As most shrubs, brambles, and ferns do not grow much in heavily manipulated soils (arable or garden), because they are perennials, and also because they tend not to enjoy the full sun conditions of open areas, the Anglo-Saxon translator, who retained these species, also intelligently conveyed Boethius' sense with the addition of the general and abstract term "weeds" and an allusion to their infestation of grain fields.¹⁹ The anonymous English writer was not the only early medieval reader of

¹⁵ J. Gaulin, "Tradition et pratiques de la littérature agronomique pendant le haut Moyen Âge," *Settimane del CISAM* 37 (Spoleto, 1990), 109–16, 128–9.

¹⁶ Walafrid Strabo, "Carmina" 4, ed. E. Dümmler, *MGH Poetae* 2 (Berlin, 1884), l. 27, p. 336 (weeds' awakening), l. 305, p. 346 (pennyroyal is "hac herba"), l. 400, p. 348 (rose, considered one of the herbs).

¹⁷ *The Old English Boethius*, Meter 12, ed. S. Irvine and M. Godden (Cambridge, MA, 2012), 132 uses "wiod." The etymology of "weod" is unknown: F. Holthausen, *Altenglisches etymologisches Wörterbuch* (Heidelberg, 1963), 389.

¹⁸ Boethius, *Philosophiae Consolationis* 3.1, ed. L. Bieler (Turnhout, 1957), 37. See André, *Lexique*, 138, 142, 275 on these plants.

¹⁹ Manipulated soils and annual weeds: E. Salisbury, *Weeds and Aliens* (London, 1961), 313; R. Zimdahl, *Fundamentals of Weed Science* (Amsterdam, 2013), 264–7.

the *Consolation of Philosophy* to find Boethius' botany confusing: a Carolingian-era commentator on Boethius' work, likely Eriugena, also tried to clarify the text with the helpful addition of "other kinds of harmful herbs" after the botanically and agronomically improbable list of shrubs, brambles, and ferns.²⁰

The Anglo-Saxon translator obviously did not invent the weed word, nor the abstract category it represents, the opposite of "wyr̥t," probably the Old English word that comes closest to the Latin word signifying plant, "herba."²¹ For "weodhoc," a weeding tool, appears in a glossary of AD 725, and implies a previous history of familiarity with the idea, and the category of plants, as well as with long-handled hooks designed to ease the removal of unwanted plants from the soil.²² Moreover, around the same time as the glossary was assembled, when the Venerable Bede was composing *De Temporibus Ratione* to refute Irish methods of calculating the exact Sunday for celebrating Easter, he used "weod" too.²³ He further alluded to the word's antiquity by telling his readers that "the ancient English people" applied the word to the month of August (as discussed in Chapter 3). It appears that early on in their history, speakers of English developed a concept of immutable, almost genetic weediness and a word to express it, and both entered their texts during the Dark Ages.²⁴

Since Britain is observably no weedier than the next place, it is unclear why the Anglo-Saxons embraced the notion of a general category of plants that were inherently bad. Lawrence King, a leading weed scientist who bravely delved into the matter, suggested that a semantic slippage had given rise to the word and concept: since woad (*Isatis tinctoria*) grew rampant across English landscapes, early medieval people had come to associate that plant, called "wad" but pronounced rather like "weod," with obnoxious vegetation, whence the term came to cover all plants the English disliked.²⁵ But aside from the fact that the earliest record of the old word for woad in English is five centuries later than that for weed, King's ingenious explanation for the odd emergence of "weed" in eighth-century texts is purely etymological and does not make sense of the

²⁰ *Saeculi Nomi Auctoris in Boetii Consolationem Philosophiae Commentarius*, ed. E. Taite Silk (Rome, 1935), 116: "alia quaeque nociva [herba]."

²¹ J. Roberts et al., *A Thesaurus of Old English* 2 (London, 2005), 1547. See also Trumper and Vigolo, "Il perché," 15.

²² *Oxford English Dictionary* 20, 79.

²³ Bede, *De Temporibus Ratione*, ed. C. Jones (Turnhout, 1977), 331–2.

²⁴ Old Irish, another language whose interaction with Latin generated lexico-botanical frictions, did not have an equivalent term, though vernacular Irish laws worried about infesting plants and clearing fields of them: F. Kelly, *Early Irish Farming* (Dublin, 2000), 233–5, 396, 452.

²⁵ L. King, *Weeds of the World* (New York, 1966), 3–6. King recognized the limitations of the woad etymology.

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Anglo-Saxon word's intellectual history. For woad grows vigorously in many other parts of northwestern Europe where there is no evidence of a word for or general idea of weed; and in any case, as King himself recognized, woad requires two seasons to reach maturity and reproduce itself, so is highly dependent on human care and very seldom becomes an infesting nuisance.²⁶ Why the English, as opposed to the Burgundians or the Visigoths or the Vandals, should develop and deploy the semantic tools for sorting vegetation encapsulated in the word "weed" does not, in sum, seem to be related to the presence of *Isatis tinctoria*, a plant premodern Europeans had long relied on and cultivated to dye cloth and skin blue.

Rather, the Old English word "weed" may reflect a pre-Christian botanical sensitivity, a notion of plant life detached from scriptural estimations of right and wrong. Since late antiquity, when the Church Fathers had popularized "bad herbs," Christians had found it expedient, even necessary, to moralize plants and divide them into good and bad kinds. When a Carolingian author like Walafrid Strabo wrote of "bad herbs," he followed earlier Christian authorities who had invented the category, even while mostly clinging to the less sweeping, adjectival constructions popularized in classical Latin.²⁷ The Anglo-Saxon lexicon, with its ample but morally non-committal category of plants called weeds, deviated significantly from the Latin one that dominated textual production during the early Middle Ages. Perhaps if more vernaculars had left written traces of themselves before the first millennium ran out, Old English would look less anomalous in its approach to systematizing the vegetable universe, and Carolingian writers, most of them familiar with a Germanic language, might have dipped into a lexicon less laden with Christianized botanical evaluation.²⁸

But as it stands, the linguistic evidence suggests that the vast majority of early medieval Europeans thought plants were inherently equal, that is, all were "herbs"; it was up to people to add adjectives according to their estimation of them. As explained more fully in Chapter 3, this more situational approach to plants' qualities reflects a Christian understanding of the universe, in which God made "green herb such as may seed" on the third day of His creation effort, as spelled out in Genesis 1.11–12, and when He also determined that this herb was good.²⁹ This induced

²⁶ The modern European languages all use a similar word for woad (guède, Waid, wede, guado, etc.), but few adopted "weed": see Clayton, "Weeds," 304. Woad as dicyclic: King, *Weeds*, 5.

²⁷ Strabo, "Glossa Ordinaria," ed. J. Migne, *PL* 114 (Paris, 1879), 353.

²⁸ Clayton, "Weeds," 308; Trumper and Vigolo, "Il perché," 13–14.

²⁹ The Vulgate divides vegetation into "herbam virentem" and "lignum pomiferum."

attentive early medieval readers of Genesis to hesitate before identifying some slice of the herbal world as inherently bad. It always depended. Earthly vegetation was ambiguous, and the vocabulary early medieval Christians applied to it faithfully mirrored this botanical ambiguity. Some herbs might behave like weeds in some contexts, but to adopt a blanket label for the designated bad species went too far. Early medieval Christian observers approached the vegetable world flexibly, and knew that what seemed a noxious herb now might at another time look altogether different. In the Dark Ages, at least away from the British Isles, total weeds did not exist, so no word for them was needed.

A solitary exception to this early medieval continental indifference to more abstract concepts of weediness is the monk of St. Gall and biographer of Charlemagne Notker (+912), whom we encountered earlier applying qualifiers to the general word “herbs.” In the just-so story he wrote in the 880s about Charlemagne consulting his exiled eldest son, Pippin (a story suspiciously reminiscent of Livy’s account of Tarquin the Proud’s suggestion for dealing with dissent at Gabii, duly modified by monastic memory), Notker described the weeds being removed from the monastic garden at Prüm as useless refuse (“inutilia recrementa”).³⁰ Notker’s generalization reveals that on occasion Carolingian writers did feel the need for a broad and capacious term covering the idea of unwanted “trash” plants. But Notker’s usage of the term is unusual in early medieval Latin. On the very rare occasions when the word “refuse” appears in first-millennium literature it is applied to the non-comestible parts of grain, the chaff from grain processing before its consumption.³¹ For the rest, postclassical writers in Latin, including Notker, preferred to label small plants good or bad according to the particular relationship people developed with each one. They did not lump them together as vile weeds.

For the Franks, whose literacy was Latin and orthodox Christianity ancient, small plants were all herbs. In their laws, the very same word, “herba,” covered both the pasture that a mounted warrior was entitled to on his way to war and the toxic plants whose potency the wicked used in order to kill other people or steal their fertility.³² Certainly Carolingian

³⁰ See note 9 above. Livy, *Ab Urbe Condita* 1.54; M. Innes, “Memory, Orality and Literacy in Early Medieval Society,” *Past and Present* 158 (1998), 17–18.

³¹ Pliny, *Naturalis Historia* 18.16 (41), 181; Prudentius, “Apotheosis,” Praef. 54, in Prudentius, *Aurelii Prudentii Clementis Carmina*, ed. M. Cunningham (Turnhout, 1966), 76.

³² Pasture herbs and toxic herbs: *Lex Salica* 9, 25.1, 25.3, ed. K. Eckhardt, *MGH Leges Nationum Germanicarum* 4.2 (Hanover, 1969), 66 (“Additamenta ad Capitularia Regum Franciae Orientalis” 50, ed. A. Boretius and V. Krause, *MGH Capitularia Regum Francorum* 2 (Hanover, 1897), 241, proscribed similar homicidal “herbs” in AD 895).

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literati knew that some vegetation was undesirable: following Bede, they compared the doubts of the Apostles before the resurrected Jesus to “bad herbs” that grew up from below ground without having been seeded from above. Carolingian authors also discussed “noxious herbs” that could poison people when mixed up with more beneficent plants. But they remained anchored to the idea that plants were not in and of themselves harmful or helpful to humans, and everything hinged on what purposes people put them to and on the relationships humans and vegetation established. Carolingian Latin vocabulary therefore perpetuated Roman understandings of the vegetable kingdom and accepted the Christian view of a fundamentally beneficent creation within which botanical misfits were such primarily in the eye of the (sinful) beholder. This confirms the Carolingians needed no special word for weeds.³³

Instead they deployed a vast number of names for the *individual* plants they disliked. No doubt because for them no blanket term could satisfactorily capture the infinite variety of plants that were a nuisance, or the particular situations in which this became true, Carolingian writers preferred to call each type of weed by its own name. Individualizing them made clearer just how each plant was bad. Thus, a literature that is utterly silent about the category weeds, and lacked a word for them, teems with stinging nettles, prickly thistles, brambles, darnel, wild oats, and caltrop.³⁴ Most of the offending plants were known to be bad from their appearance in the scriptures, the botany of which did not match Carolingian Europe’s perfectly but nevertheless was a great inspiration for any who wondered about what attitude to take toward any given plant. A few species whose representation in Carolingian texts is consistently negative instead had a bad reputation in earlier Latin literature. Overall, while they certainly knew which kinds of plants were undesirable, the Carolingians did not add much to the Latin repertory or vocabulary. They were satisfied with the botanical baggage inherited from the ancient and late antique Mediterranean.

Carolingian efforts to raise the levels of Christianity within the empire hinged on improving clerical access to the scriptures, the Latin text of

³³ Bad herbs: Bede, “In Lucae Evangelium Expositio,” ed. D. Hurst, *Beda Venerabilis Opera* 2.3 (Turnhout, 1960), 418: “sicut herba mala”; Smaragdus of St.-Mihiel, “Collectiones in Epistolas et Evangelia,” ed. J. Migne, *PL* 102 (Paris, 1865), 237; Hrabanus Maurus, “Homeliae” 8, ed. J. Migne, *PL* 110 (Paris, 1864), 148; Hrabanus, “Glossa Ordinaria, Evangelium Secundum Lucam” 24.37–8, ed. J. Migne, *PL* 114 (Paris, 1879), 353.

³⁴ This “speciesism” reflects a sensibility to natural variety quite unlike the more anthropocentric conception behind the idea of weeds. J. Kreiner, *Legions of Pigs in the Early Medieval West* (New Haven, 2020), 30–4 aptly discusses postclassical theories of (animal) speciation, and unease about generalizations like genus and species that failed to account for individual characteristics.