

POLYGONACEAE

The name, meaning *many joints*, refers to the *many swollen nodes* the stems some species of this family have; in many species, the nodes (where the stem branches, or where leaves grow from it) are not just swollen but are covered by a thin structure of fused stipules, called an ocrea (meaning *protective legging*).

Family Polygonaceae includes some of the worst weeds, including species of *Persicaria*, *Emex*, *Rumex*, *Polygonum* and *Reynoutria*, eg Japanese knotweed (*Reynoutria japonica*).

Japanese Knotweed, as with many invasive plants, *thrives on disturbed ground* [eg ground that has been subjected to digging, where the surface has been scraped aside, exposing and bringing to the surface soil that would otherwise have been covered].

Sheep's sorrel is also a troublesome weed because it can grow a tap root down to a depth of half a metre (almost two feet) and the superficial root system *can extend a metre away from the shoot*. In addition to this, *the roots develop bulbils from which new individuals arise*

Family Polygonaceae, together with its close relatives *Amaranthaceae* and *Chenopodiaceae*, include most of the foods with *excessively high oxalate concentrations*. *Polygonaceae* includes buckwheat, rhubarb, and sorrel, while *Amaranth* is a species of the *Amaranthaceae* family, whereas beetroot, mangold, spinach, and quinoa are all species belonging to the *Chenopodiaceae* family (now included in *Amaranthaceae* in APG IV). All are in order *Caryophyllales* (APG IV), referred to by Cronquist as subclass *Caryophyllidae*.

Leaves of Polygonaceae plants taste sour. This is mainly due, in most species, to the presence of relatively *high concentrations of oxalic acid*, functioning as a defence against herbivores, producing *unpleasant effects when eaten*.

Sensation

IRRITATION & SOURNESS, as in an unpleasant sensation that is acidic, sharp, acrid, as well as: BURNING, STINGING, SMARTING, CORROSIVE, CAUSTIC, resulting in RAWNESS. The irritation may often be in felt in the form of ITCHING, PRICKING or PRICKLING.

SMARTING RAWNESS & IRRITATION from HARSH, ROUGH, COARSE, ABRASIVE TREATMENT, *such as from having a surface layer or covering SCRATCHED or SCRAPED away*, or perhaps from ROUGH, FORCEFUL PENETRATION OF ORIFICES.

A 'SMARTING' sensation can be described as a kind of BURNING, STINGING PAIN, as would result from being *slapped in the face*...

This implies an element of being *insulted* or *offended*, or in some way *wrongfully aggressed*.

Active Reaction

Mentally/emotionally/behaviourally:

- IRRITABILITY
- SOURNESS:
Embittered, resentful, nasty, spiteful, sharp-tongued, irritable, irascible, peevish, fractious, fretful, cross, crabbed, crabby, crotchety, cantankerous, curmudgeonly, disagreeable, petulant, unpleasant, distasteful
- CAUSTIC: Bitingly critical or sarcastic
- SCRATCHY: Peevish, spiteful, abrasive, grating
- HARSH, ABRASIVE TREATMENT OF OTHERS
- *Forceful/damaging/traumatic scratching or scraping (of self or other people/objects)*
- *Rough, forceful penetration of orifices (or desire to inflict such an assault)*
- Screaming, shouting, groaning, moaning (in pain, discomfort or torment)
- Restless & unsettled (eg unable to do mental work/study)
- Disturbed/restless sleep (especially at night, with sleepiness in daytime)
- Alternating states (often extreme)

Physically:

- IRRITABILITY & IRRITATION and/or INFLAMMATION:

especially of *mucous membranes* or *skin*, often particularly in folds, creases and flexures, with *aggravation from or after scratching*; common complaints include *heartburn*, *oesophagitis* and *gastritis* as well as *photosensitive dermatitis* and *urticaria*.

- SOURNESS: of discharges, secretions, excretions; acidity of digestive system.
- *Discharges*, eg: *sour*, *excoriating* or *gushing*
- *Complaints that spread, radiate or wander*
- *Pains extending to other parts, especially downwards*
- Sharp, shooting, lancinating, piercing or cutting pains (compare with pains of Oxalic acid)
- Alternating states

Passive Reaction

- Disinclined to speak/converse (eg aversion to and/or aggravation from)
- Indifference/apathy (eg to life/everything/surroundings)
- Sleepiness in the daytime (due to disturbed, restless sleep)
- UNCOVERING generally AGGRAVATES (though *in some cases is desired*), eg:
 - undressing aggravates, covering part ameliorates... *or* an inclination to uncover
 - AGGRAVATION FROM EXPOSURE TO COLD AIR (eg inhaling in cold air)

Compensation

- Desire for SOOTHING SMOOTHNESS (as opposed to that which is rough, abrasive, disturbing and irritating)
- CALMING things down, SMOOTHING things over
- REMAINING CALM in the face of irritating factors
- SOOTHING, eg soothing self, self-pacifying

Miasmatic assignments

Rheum palmatum (Ornamental rhubarb):

Probably Typhoid (as assigned by Rajan)

Fagopyrum esculentum (Buckwheat):

Possibly Sycosis (or some other miasm with a base of Sycosis, ie Ringworm or Malaria)

Rumex crispus (Yellow dock):

Possibly Tuberculosis (or else some other miasm deeper than Sycosis, but before Syphilis)

Polygonum hydropiper (Water pepper):

Possibly Syphilis

[*Reynoutria japonica* (Japanese Knotweed) – currently unavailable from most pharmacies: possibly somewhere close to Syphilis (used herbally to treat Borreliosis, aka Lyme disease)]

Unassigned:

Lapathum acutum (*Rumex obtusifolius*)

Polygonatum multiflorum

Polygonatum officinale

Polygonum aviculare

Polygonum persicaria

Polygonum punctatum (often erroneously listed to as “*P. hydropiperoides*”)

Polygonum sagittatum

Rumex acetosa (Sorrel)

Rumex acetosella (Sheep’s Sorrel)

[Individual pharmacies may stock other members of this group not listed above]

Comparison with and differentiation from Araceae

The active reaction, passive reaction and compensation can help to differentiate from family Araceae, which has a very similar sensation, though it has less emphasis on irritation and irritability.

In terms of plant evolution, the Araceae are significantly less evolved than the Polygonaceae; Araceae belong to a primitive Monocot order, whereas Polygonaceae are relatively more developed Dicots, belonging to order Caryophyllales (Cronquist’s subclass Caryophyllidae), a group of plants with specialised adaptations to a variety of inhospitable environments. (In the Cronquist system of plant taxonomy Polygonaceae is the only family in order Polygonales.)