

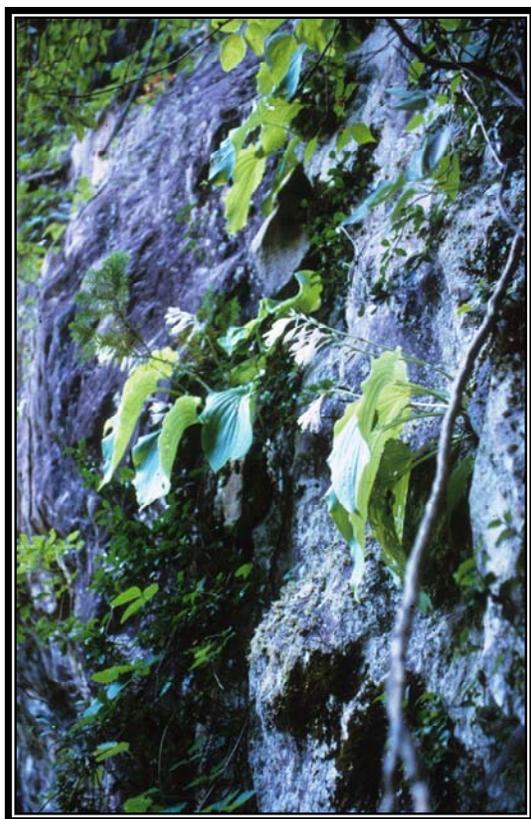
Part 4B

Hosta Species: Plant Size, Rhizome and Roots

Morphology

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H. hypoleuca Maekawa 1962
Chiiwa Gorge near Horai City, Aichi-ken

Plant Size (for an individual plant on a single rhizome)

Mark Zilis, in his excellent reference *The Hosta Handbook*, uses the term “mound” for characterizing the habit of mature hosta species and provides dimensional information for mound height and width for all his main species entries.

Undoubtedly, many cultivars and some species do form magnificent mounds in gardens. Nevertheless, *Hosta* species in their natural habitat form populations, but some species can make beautiful “mounds.” This is exemplified by the picture of *H. fluctuans* shown on page 1, Part 1. However, that is the exception to the rule. More often than not, *Hosta* species in a favorable environment will form large colonies of individual plants that stand shoulder to shoulder. Among these groups of individual plants, I found struggling seedlings, mature plants and old ones that are completing their life cycle. Some species grow on rocks under waterfalls, as for example *H. longipes* in

the Japanese Alps near Mount Tanayama, in Kishatihara-gun of Aichi-ken, taken in August 1984 (see on next page ▼ Page 2). Others grow in shallow earth pockets on steep mountain sides, as illustrated here. Seen here are several individuals of a *H. hypoleuca* population, growing in Chiiwa Gorge, near Horai City (H. Sugita). This deep gorge runs along the Chiiwa River for about 2.5 miles (4 km) and past Mount Chiiwa. Under these circumstances, it is not possible for the plants to form large



mounds. The plants adapt to such sparse conditions and grow 2 to 5 large leaves. I have seen mature specimens with just a single leaf. These examples show that wild populations consist of many individuals, which may be widely spaced over a large area, or, concentrated groups of plants forming colonies. Either way the populations must be large

enough to sustain themselves. Transplanted into gardens and given care, *H. hypoleuca* forms a large, many-leaved mound, as shown by the D. Nakon photo shown to the right ►

I have used the above as examples that *cultivated* hosta species (normally) do not have to compete with other plant species for room to grow. For this reason the term “mound,” when applied to *Hosta* species in their natural habitat, should consider the aforementioned natural growing conditions.

To summarize, in their natural habitat, *Hosta* species may for environmental reasons not form clumps nor do they develop into the magnificent dome-shaped mounds we are accustomed to see in gardens. The plant size given is for a mature individual and is intended to be an average.



Root stock and roots:

Most species have a tuber-like, belowground, rhizomatous rootstock (a rhizome) with abbreviated internodes. The leaf bundles are produced at the apex of the rhizome and frequently the remnants of vascular bundles appear there in spring. The size and thickness of the rhizome depends on kind of species, age, nutrition, environmental factors, and water economy. The roots emanating from the rhizome are long, white, round in cross section, hairy and from 1–4 mm (0.04–0.15 in.) in diameter. A number of *Hosta* species have rhizomatous root systems, as, for example, *H. clausa* and *H. minor*. These species have elongating rhizomes that form leaf bundles at spaced internodes so form colonies, resulting in mats of interconnected plants. These creeping organs are not actually roots but elongated rhizomes. These colonies

considered as a whole are spread out, but the individuals within the population can be dome-shaped, make a flat mound or are erect with upright, lengthened petioles.

To summarize, in most descriptions, the rhizome and root system specification conform to the above description, adjusted for plant size. Only conspicuously rhizomatous species, as for example *H. minor* (see illustrations below) or *H. clausa* get special mention of this character.



▲ *H. minor* Elongated Rhizomes • Hosta Hill ▲

Coll. in Guryongpoeup, Yongilgun, Kyongsangbuk-do, Korea; 90 m; 1990
(W. G. Schmid Photo • 1991)

▼ *H. minor* Elongated Feeder Roots ▼

Coll. Gajisan P.P.; Kyongsangnam-do, Korea; 600 m; 1990
(W. G. Schmid Photo • 1991)

