Iris pseudopumila

Walter Welch

Originally appeared in the *Dwarf Iris Society Beginners' Manual,* c. 1965. Photo has been added, and the text has been edited slightly to note current species names (in square brackets) and to conform with modern typographical conventions.

I. pseudopumila was collected by Vincenzo Tineo in 1327 and was described as native to Sicily and southern Italy. It had apparently never been in this country until Dr. Randolph collected it and brought it to America. At that time, he sent me two forms, one from the island of Sicily, and the other form from southern Italy. Both were so very different in character that it is difficult to conceive of such variability within one taxonomic unit.

My notes from the San Martino form says: Standards greenish yellow. Falls purplish spot with border. Overall height 8½ inches, ovary 4 inches up the stalk, perianth tube 4 inches. Standards open; falls tucked; slender stalk; wide pointed leaves, not curved; greenish yellow beard. It bloomed with *chamaeiris* [*I. lutescens*].

The other form was low growing and prostrate, except for the bloom stalk which was 8 inches high. The leaves were extremely sickle shaped as *I. mellita* [*I. suaveolens*], and rather wide.

When we think of *pseudopumila,* it is natural that we should compare it with *attica* and *pumila,* which apparently are very closely related. But in the typical form, it is so different from either that one can hardly realize that they could be so different.

For instance, the seed pod is halfway up the stein, which would suggest that it is a hybrid from some species having the ovary at top of the stem, as both *attica* and *pumila* have their pods at the bottom of the stem. The shape is also different. Instead of being rather rounded, it is longer, up to 3 inches at times, quite large, resembling somewhat the shape of *I. chamaeiris.* The pod wall is thick and meaty. It has one terminal bloom, no branching. The former came from San Martino, the latter from Apulia, Italy.

Later I received other plants, in other than the variegata pattern. One was a violet form, another was in yellow. One of these in particular was interesting in that it comes from the Adriatic Coast near Zadar,

I. pseudopumila
photo: Ken Walker

Yugoslavia, which is considered outside of *pseudopumila* territory. Cytological tests of the chromosomes of this Zadar plant show that it has 16 chromosomes which are very similar to those of the known *I. pseudopumila.* Dr. Randolph reports that it is much smaller than the type locality form. This suggests the possibility of its being a connecting link between *I. attica* and the taller forms of *pseudopumila* native to southern Italy.

In looking at this Zadar form, I fail to distinguish anything about it that would place it in the *pseudopumila* group. It has the look of *I. attica* in every way. Even its karyotype, according to my idea, lacks the evidence to regard it as a *pseudopumila.* Dr. Mitra states that in both species all chromosomes are subterminally constricted, but that in *attica* the No. 1 chromosome is submedian, whereas in *pumila* it is median. This alone seems to be the sole evidence for calling it a *pseudoumila* rather than an *attica.* Mitra further states that in the Zadar form the satellites occur on chromosomes 2, 3, and 7, the same as in *I. attica,* whereas in other pseudopumilas they occur on chromosomes 2, 6, and 8. On the basis of the shape of just one chromosome it has been claimed that *I. pseudopumila* extends its territory over into Yugoslavia.

Dykes states that if it were not for its distribution, *pseudopumila* might be looked upon as a hybrid of *chamaeiris* X *pumila,* for it is practically a large *chamaeiris* with a long perianth tube. This describes it quite well; however, it is quite different from both *chamaeiris* and *pumila* in most of its characteristics.

Then the question appears, in consideration of its being so close in relationship to *attica* and *pumila,* with chromosomes homologous to both, and with the same number and kind of chromosomes, where did it get that *chamaeiris* look—that big seed pod, that ovary half way up the stem, that late blooming with *chamaeiris,* etc. We know that, aside from possible mutations, it is possible for one species to cross with another to produce a hybrid, and perhaps acquire certain new characteristics; and then, by the loss of univalents or chromosomes without partners, these odd elements will become lost and the species will revert to its original number of basic chromosomes, but may retain the new acquired genes or factors. This may be the answer to *pseudopumila.*

I find *pseudopumila* is probably the least adapted of any of the species to the conditions here in the Midwest. I have difficulty in growing it, and it appears to be especially susceptible to rhizome rot. This explains why I have been unable as yet to grow more than a very few seedlings from it. It is possible that it may be better adapted to some areas where *pumila* is more difficult to grow. It should be tested for such environments.