possibly distinct agricultural values. Indeed, we think it quite likely that intensive study would reveal such races, but that even then botanically they should be treated as at most varieties of a single species. The hybrid idea was attractive to us, but we have seen nothing that in any way supports it. Nor have we observed hybrids with *P. minor*.

What is Phalaris bulbosa?

In the foregoing we have used the name *bulbosa* as for the grass of the Mediterranean region. This is the sense in which it is used by Stapf and Hackel, and by the generality of European taxonomists, whether with or without the name of Linnæus attached. But there is grave doubt whether the name *bulbosa*, as thus used, applies to the grass originally described by Linnæus. The synonymy is complicated, and we propose merely to give what appear to be the essential facts that emerge, following Mr. Hubbard's researches.

P. bulbosa L., *Cent. Pl.* i, 4 (1755); *Amoen. Acad.* IV, 264 (1759). This is the earliest and only valid use of the name *bulbosa*. The specimen in the Linnean Herbarium named *P. bulbosa* in the handwriting of Linnæus is the plant now known as *Phleum tenue* Schrad., and not a *Phalaris*. To this specimen the description of Linnæus applies much better than to the Mediterranean *Phalaris*, and the statement of distribution, "in Oriente," also agrees with *Phleum tenue* and not with the *Phalaris*. The name *bulbosa* should therefore be abandoned. Linnæus described the Mediterranean plant under the name *P. tuberosa* in *Mant.* ii, 557 (1771). The species is based on the description by Morison of his "Phalaris perennis major radice nodosa" in *Plant. Hist. Oxoniensis*, iii, 187 (1699). There is a specimen so named in the Linnean Herbarium. This is the species to which the name *bulbosa* has commonly been applied. The name *P. aquatica* L. has also to be considered. It is by no means clear whether this name is to be applied to *P. tuberosa* L. or to *P. caerulescens* Desf. Added to this is the fact that the terms *bulbosa* and *aquatica* have both been applied as specific epithets by different authors to a number of different species (both, for example, have been used for *Phalaris minor* Retz.). The clear and legitimate solution of the tangle appears to be to reject both *aquatica* and *bulbosa*, as being "nomina confusa." This leaves us free to adopt the name *P. tuberosa* for the species we are considering, to which alone it has been applied.

Species of Phalaris occurring in New Zealand.

We supply a key to the species we have observed in New Zealand, and add remarks on each. The following notes, together with the illustrations, will enable the uninitiated to understand the terms used. The flowers are developed in panicles of spikelets, each spikelet being stalked. The panicles may be arranged with the branches somewhat widely spreading (as in *P. arundinacea*, Fig. 1, *a*), or closely compacted, the whole inflorescence then having a spikelike appearance (Figs. 1, *b*, *c*, *d*, *e*). Each spikelet is composed of the following parts: Two large husks (glumes) enclosing the florets (Figs. 2, *a–e*); a fertile floret with hardened, rather shining, more or less hairy husks (Figs. 2, *f–m*); one or two sterile florets at the base of the fertile one, composed of small shining scales with or without an appendage (Figs. 2, *f*, *g*, *l*).