

# *Arundo* and *Phragmites* (Gramineae) distinguished by their ligules

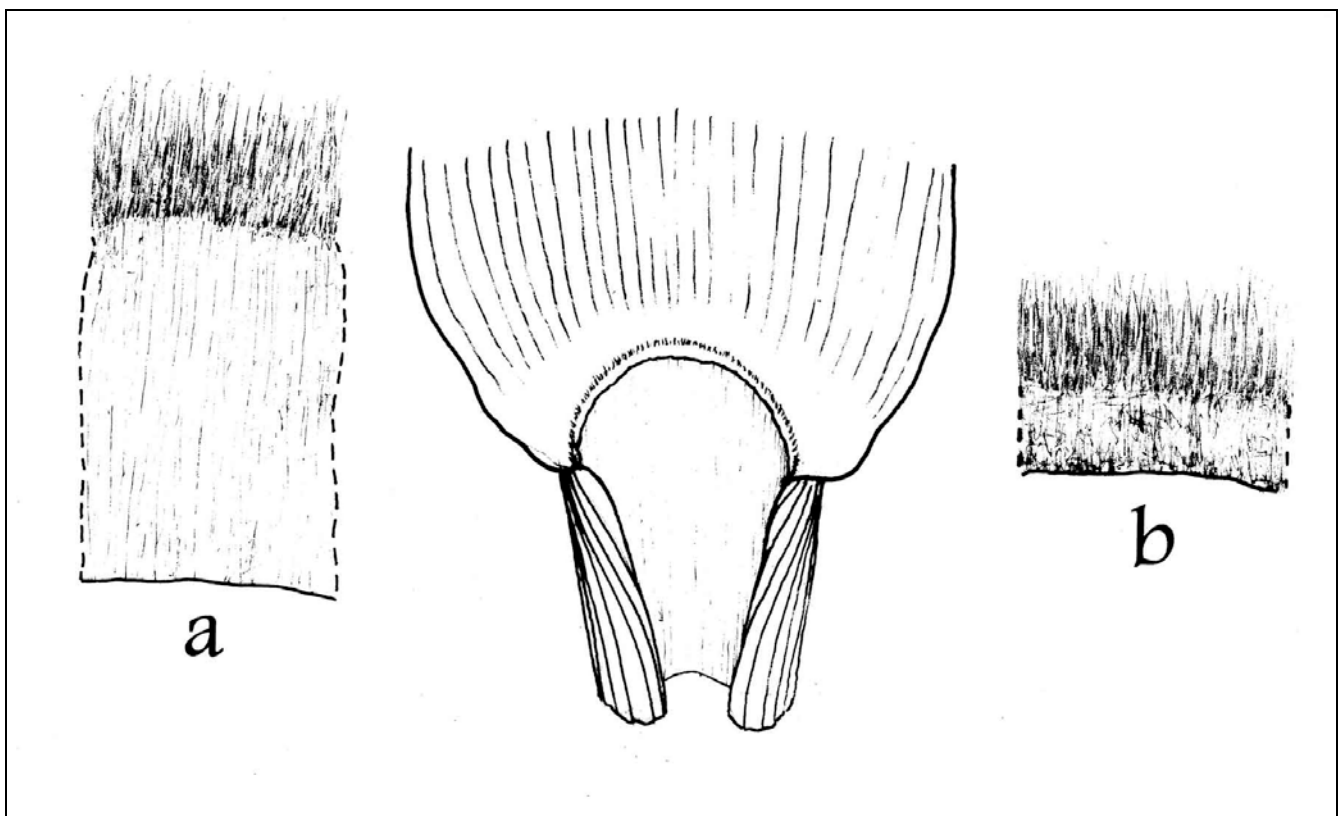
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One of the glories of *Flora of New Zealand V* (Edgar & Connor 2010) is the attention paid to that small structure, the ligule, something that might have been expected only in countries like Britain, where pressure from competitive amateurs results in a maximum number of differentiae being squeezed out.

*Flora NZ V* keys *Arundo* and the similar large reed *Phragmites* in the conventional way, by floral characters, and one has to mine the species' descriptions for anything that might help with sterile material. Each genus has only one naturalized species in this country, *A. donax* and *P. australis*. In both the ligule is a membrane topped by cilia, that is,

a line of hairs; that of the former is said to be 1-2 mm long and short-ciliate; that of the latter, c. 1 mm long and long-ciliate. (The length includes the cilia).

Fig. 1 compares *A. donax* and the plant believed to be *Phragmites karka* (Wilcox 2011; note that some Floras regard this as a mere form of *P. australis*). The descriptions of *Flora NZ V* are firmly upheld. The *A. donax* ligule is c. 3/4 membrane and 1/4 cilia; the *P. karka* ligule, c. 2/5 membrane and 3/5 cilia. To a first approximation, that is, without doing a great deal of sampling, the actual hairs can be said to be about the same length in both.



**Fig. 1.** Central: conventionalized ligule for both *Arundo* and *Phragmites*. a. Enlargement of *Arundo donax* ligule (membrane and hairs together 1.5 mm tall). b. Enlargement of *Phragmites karka* ligule (membrane and hairs together 0.75 mm tall).

## References

- Edgar, E.; Connor, H. E. 2010: *Flora of New Zealand. Vol. V Gramineae*. 2nd edn. Manaaki Whenua Press, Lincoln.  
Wilcox, M.D. 2011: Occurrence of the tropical reed grass *Phragmites karka* in Auckland. *Auckland Botanical Society Journal* 66 : 140-142.