

4. Scientific revisions: these are more technical scientific publications than the previous examples and are published in peer-reviewed scientific journals and books. These publications often deal with larger taxonomic groups, such as a family or genus, frequently dealing with a specific geographic area. They provide the same information as a 'Flora' but usually in more detail and with more precise technical terminology than used in the other forms of publications. However, early scientific publications are often very brief, being little more than a listing with a brief descriptive diagnosis in Latin. All forms of scientific revisions usually require a specialized level of knowledge to use effectively.

There are too many useful publications available to provide a generalized simple list here. However, Frodin (2001) provides an extensive and yet selective annotated bibliography of the principal floras and related works of inventory for vascular plants. The book lists principally specialist publications such as floras, checklists, distribution atlases, systematic iconographies, and enumerations or catalogues. A few popularly oriented books are included. Increasingly, publications that are useful for botanical identification and general information about botanical diversity are becoming available in electronic format, e.g. 'Flora of Australia' (ABRS 1981–), 'Flora of China' (Flora of China 1994–) and 'Flora of Taiwan' (TAI 2003–). Other publications are also available electronically, e.g. the printed version of 'Flora Europaea' (Tutin et al. 1964; 1968; 1972; 1976; 1980; Moore 1993) has been replaced by Walters and Webb (2001). Interactive guides to many plant groups have been specifically developed as CD ROM products (e.g. Agoo et al. 2003; Brooker 2006; Hyland et al. 2003; Jones et al. 2006; Maslin 2001; Schuiteman and Vogel 2001; 2002; 2005; 2006; 2008; Schuiteman et al. 2008; Thiele and Adams 2002).

Since new electronic interactive identification tools are being rapidly developed, regular searching of the internet is strongly encouraged. Specific websites (e.g. Anonymous 2001–) provide current information on their theme. The websites of herbaria are also an excellent resource for links to relevant identification publications (e.g. Missouri Botanic Gardens 2009). Of course, the primary resource should always be the authoritative advice of herbarium staff.

11.1.2 Botanical terminology

The descriptive terminology for plants and their component parts have been developed for the purpose of providing an accurate and complete vocabulary for description, identification, and classification (Radford et al. 1998). The collector requires some knowledge of this terminology so that adequate material and accompanying field notes are provided to assist the identification process and to provide material that is useful for other scientific purposes. For example, a basic understanding of the structure of flower is required if the colour or shape of the parts of a fresh flower are to be described unambiguously for interpretation of the dried material. A glossary of technical terms is usually provided in regional 'Floras' (Conn and Damas 2006–) and in specialized textbooks on plant systematics of taxonomy (Radford et al. 1998–). A generalized search of the internet will recover several excellent on-line glossaries of botanical terms (e.g. Lyne n.d.; Flora of China n.d.; Wilmé 2002–). However, it is preferable to use the glossary of terms provided in the publication being used for identification purposes. Some otherwise 'standard' terms may be defined slightly differently in various botanical publications. The terminology used in this chapter has been simplified as much as possible, but reference to a botanical glossary may be required. There are a few specialized glossaries that assist with the translation of a botanical term to other languages (e.g. Rossi-Wilcox n.d.).