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11.4 Electronic Data

Increasingly, computer systems are being used to store and manage biological data. Develop a data field-based system, such as an electronic database or spreadsheet, to record and store botanical collection data. Personal digital assistant (PDA) handheld computers are also available for direct data entry. Make sure that you enter the information into the data fields (spreadsheet cells) in a consistent manner, according to the data definition of each field/cell. Always be careful with spelling. For information of data exchange standards refer to Conn (1996) and for more recent versions of this standard, refer to HISPID (2007–). Provide these data to the agency receiving your botanical collections. This avoid data processing errors caused by rekeying information, and will make these data part of a much larger national and/or international biodiversity data network.

11.5 Pressing and Drying Plants

Once the botanical material has been collected, labelled with the collector's name and collecting number, and the field notes have been completed, the next task is to flatten (press) and dry the material as soon as possible (with exceptions discussed above). The selected specimen is inserted into folded newspaper (Fig. 11.3) or into special drying paper with good absorbing properties. If it is not possible to press specimens in the field because of insufficient time or the inaccessibility of the collecting location, then the collections can be sealed within a plastic bag for a short period of time, usually less than one day, without their deteriorating noticeably. In dry conditions, the collections should be moistened with a small amount of water to minimize dehydration. Individual collections can also be rolled in moistened newspaper and sealed in plastic bags for a short time, mostly for less than twelve hours, and then pressed and dried. Botanical specimens should also be kept cool if they are not pressed and dried immediately. However, it should be noted that many plants, particularly some flowers, are not robust enough to survive any delay in pressing. Every effort must be made to ensure that the separate parts of each collection are kept together until they are pressed.

The reasons for pressing and drying botanical material are:

- to preserve the material for future study;
- to prevent wilting and minimize distortion;
- to not only flatten the material so that less space is required for storage, but to protect delicate features that are generally less likely to be damaged in pressed specimens.

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Remember: the drying papers must be inspected and changed regularly, particularly during the first few days of pressing. This is very important in humid environments and for specimens that have a high moisture content.