Common Plants of INL

Third Edition

Kristin N. Kaser, Amy D. Forman,
Jackie R. Hafla, and Sarah A. Baccus

INL
Idaho National Laboratory

This book belongs to:

Name: _____

Contact: _____

Credits

Graphic design by Dallas M. McCary.

Line drawings by Jackie R. Hafla.

Featured plant photographs by Kristin N. Kaser.

A sincere thank you to the Natural Resources Group for their advice that kept this guidebook focused on practical field use by a variety of non-technical users.

Although this third edition represents a substantial revision to previous editions, the previous editions established the value of a site-specific guide that translates botanical taxonomic information into a plant identification resource that can be used to facilitate undergraduate training in ecological monitoring at the INL Site. We thank the interns who have used earlier editions of this guidebook and provided valuable feedback for the improvements in the current edition.

PHOTO BY NINA KECK

How to Use This Book

Although we sincerely hope this field guide will appeal to a broad audience, the authors specifically designed it to support ecological monitoring on the INL (Idaho National Laboratory) Site. Because it is used to facilitate site-specific monitoring, it is organized differently from traditional field guides. Plant species are organized into functional groups based on their physical growth form. The primary functional groups are forbs, graminoids, shrubs, and trees. Within each functional group, species are listed alphabetically by a unique INL plant code. Species are identified by matching the identifying characteristics and associated photographs from a species description page to the plant observed in the field. Each plant description page notes whether the species is native (N) or introduced (I) and whether it is an annual (A), biennial (B), or perennial (P). Nativity and duration are indicated in parentheses at the top of each species description page. A red corner label on the species description page designates the species as noxious within the State of Idaho. Plants are identified as important pollinator species with a bee symbol in the top banner near the INL plant code (pollinators defined using USDA NRCS 2011).

There are three indices in the back of the field guidebook to assist users who are familiar with either the common name or family in finding the INL plant code. Each index will provide the INL plant code and corresponding page number(s).

Nomenclature follows the USDA Plants Database (2023). Identification, taxonomy, and synonyms follow Flora of the Pacific Northwest (Hitchcock and Cronquist 2018) and the online Flora of North America Editorial Committee, eds. (1993+).

What are INL Plant Codes?

Assigning unique codes to each species is a common approach for expediting vegetation sampling and the INL plant codes used throughout this guide ensure consistency among INL-specific datasets. INL plant codes are typically derived from the first two letters of the genus and the first two letters of the specific epithet. For example, *Artemisia tridentata* is assigned ARTR. When two species share the same code, at least one of the species is assigned a number. For example, *Ericameria nauseosa* is assigned the code ERNA and *Ericameria nana* is assigned the code ERNA2. Although the codes used in this book generally follow national codes assigned by the USDA Plants National Database, the number at the end of the code is specific to the INL and is related to the abundance of that species. There are a few INL plant codes that do not follow this convention but have been retained to maintain consistency with existing long-term datasets. For example, *Artemisia tripartita* was assigned the INL plant code ARTP instead of ARTR, followed by a number.

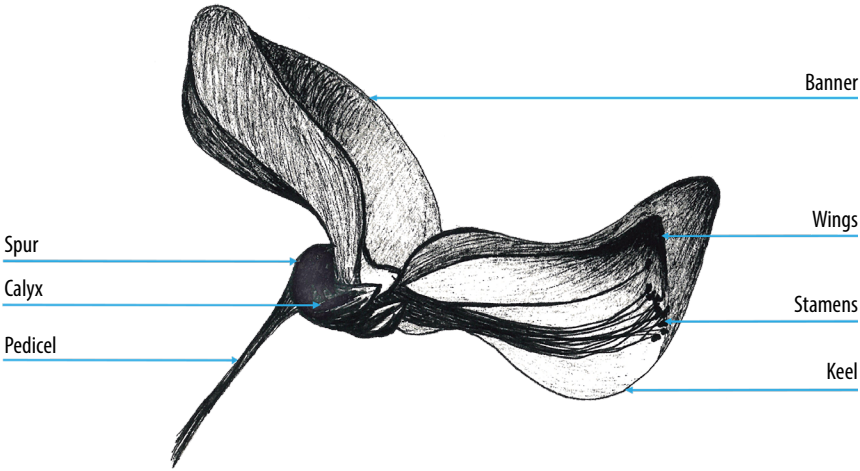
This field guidebook is the third edition of a living document that will continue to change as its utility is assessed and tested through use in the field. For the most current version of this document and for additional INL ecological resources see https://inl.gov/natural-resources/.

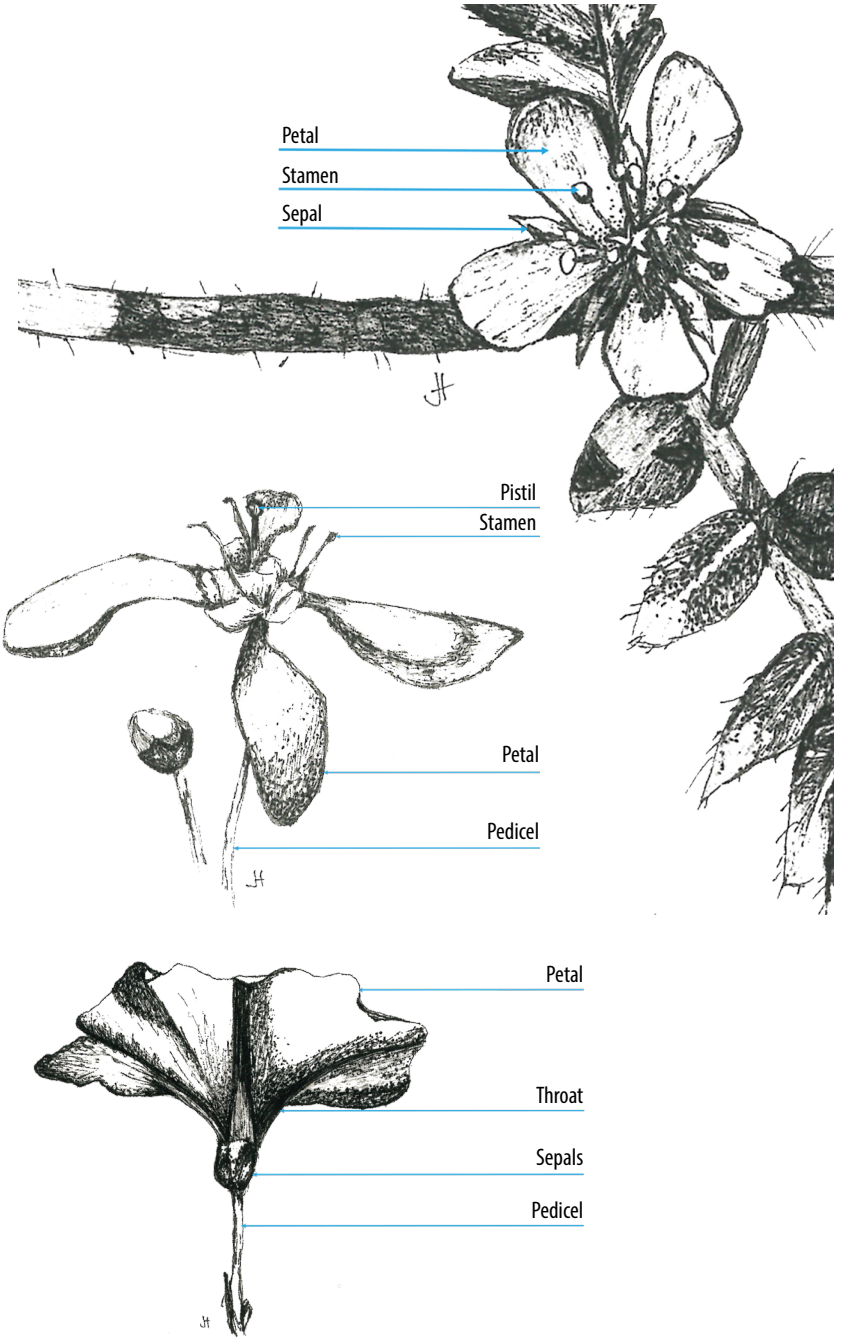
Table of Contents

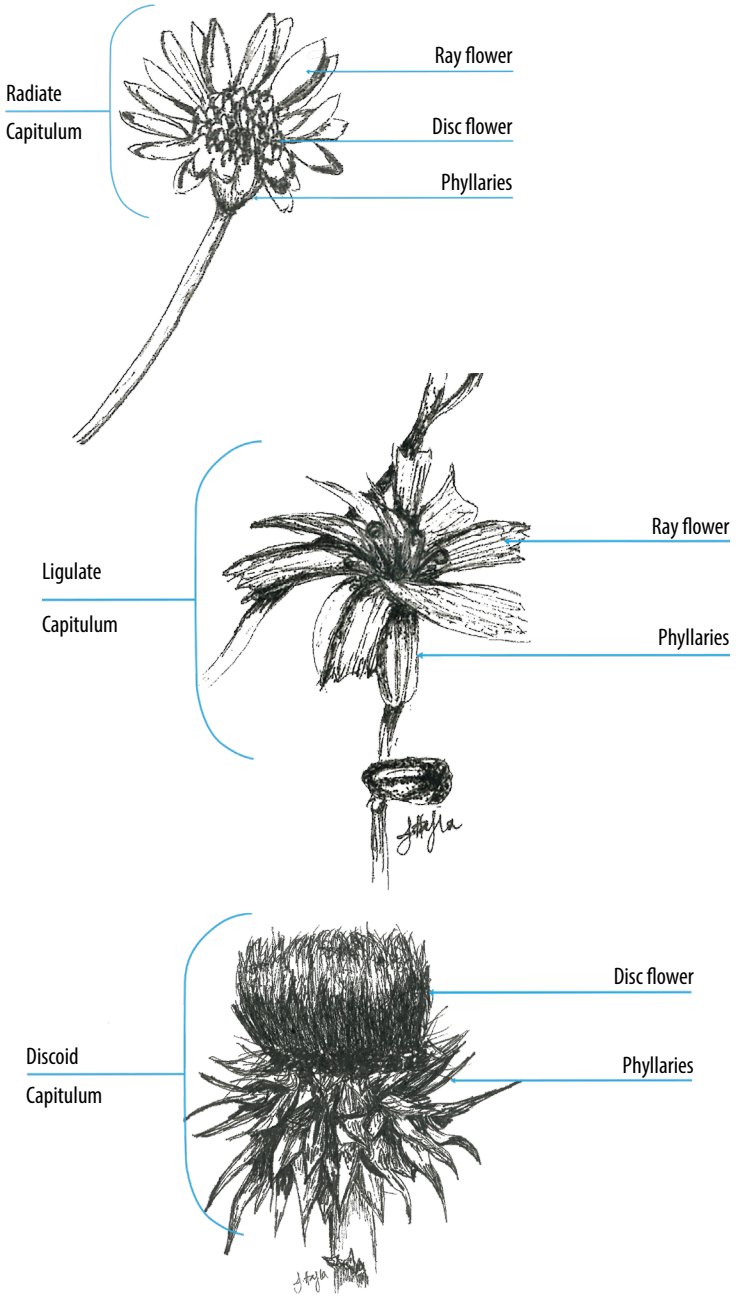
Terminology

Anderson's larkspur | *Delphinium andersonii*

Flower Anatomy

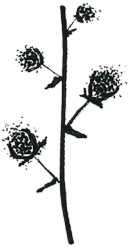



Petal
Stamen
Sepal
Pistil
Stamen
Petal
Pedicel
Petal
Throat
Sepals
Pedicel


Radiate
Capitulum
Ray flower
Disc flower
Phyllaries
Ligulate
Capitulum
Ray flower
Phyllaries
Discoid
Capitulum
Disc flower
Phyllaries

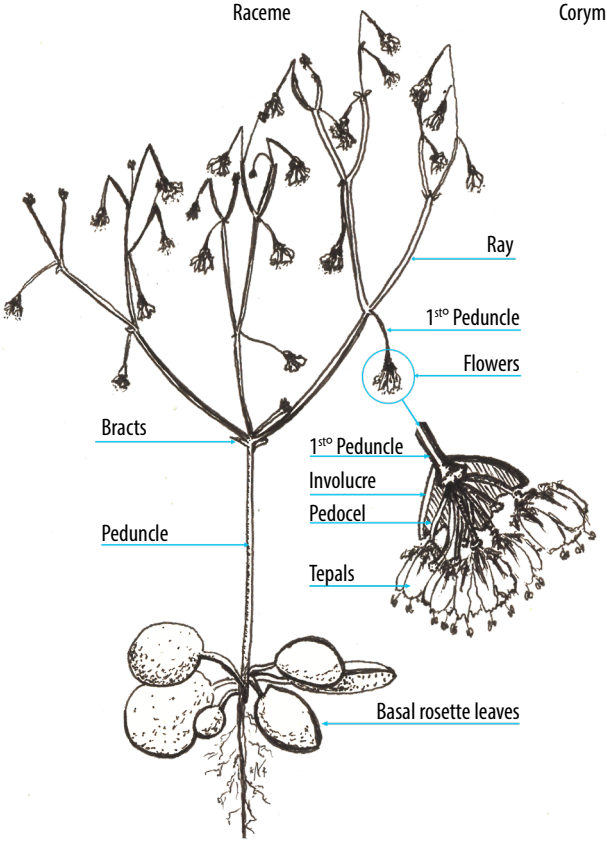
Flower Arrangements

Spike



Raceme

Corymb



Pedunculate

Panicle

Umbel

Cyme

Helicoid Cyme

Spike

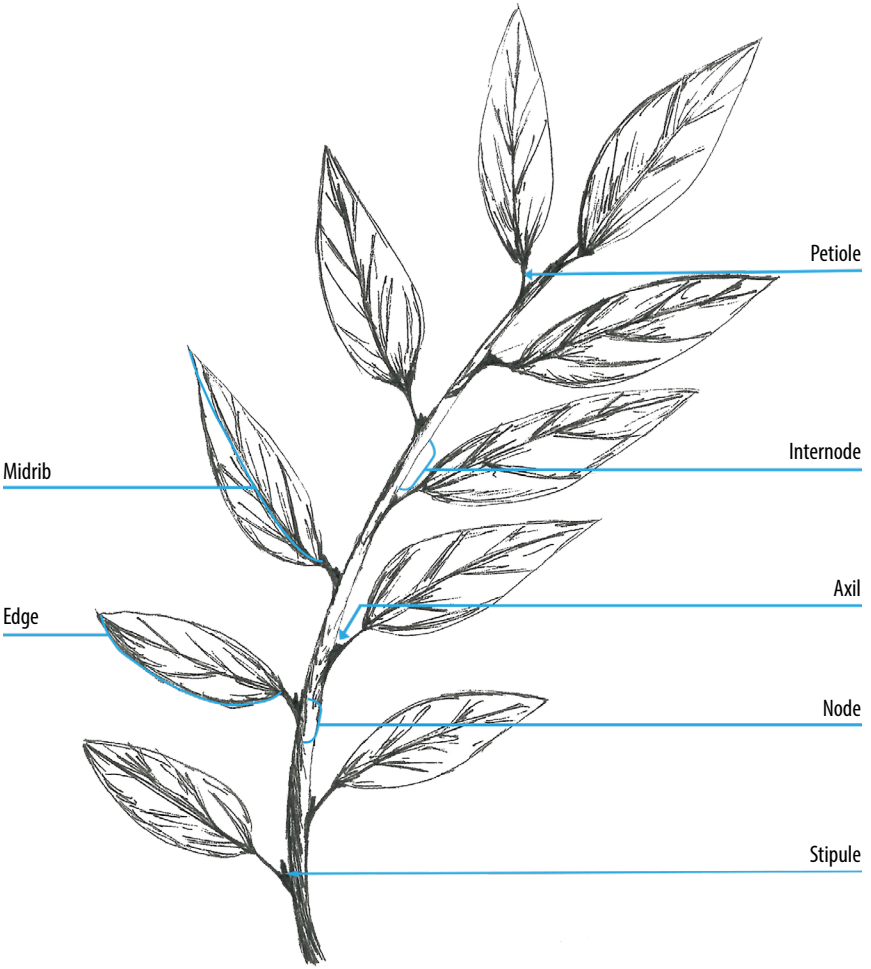
Corymb

Panicle

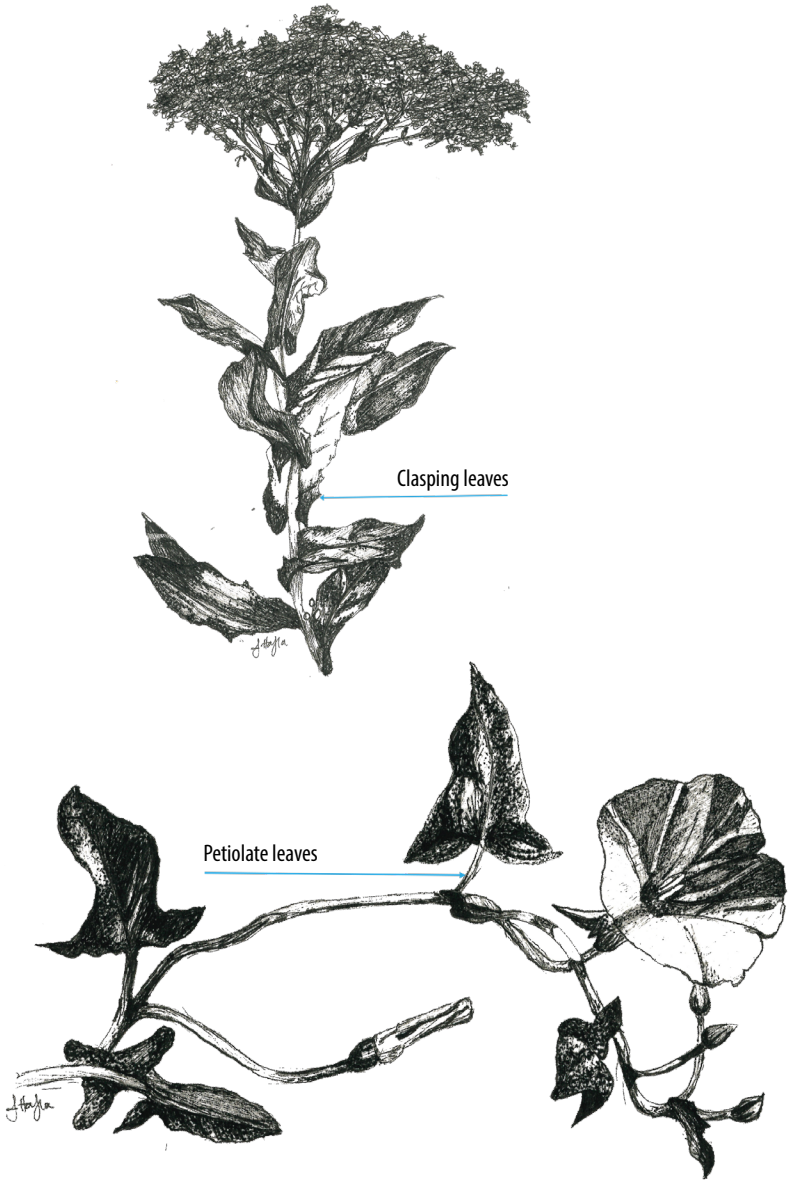
Cyme

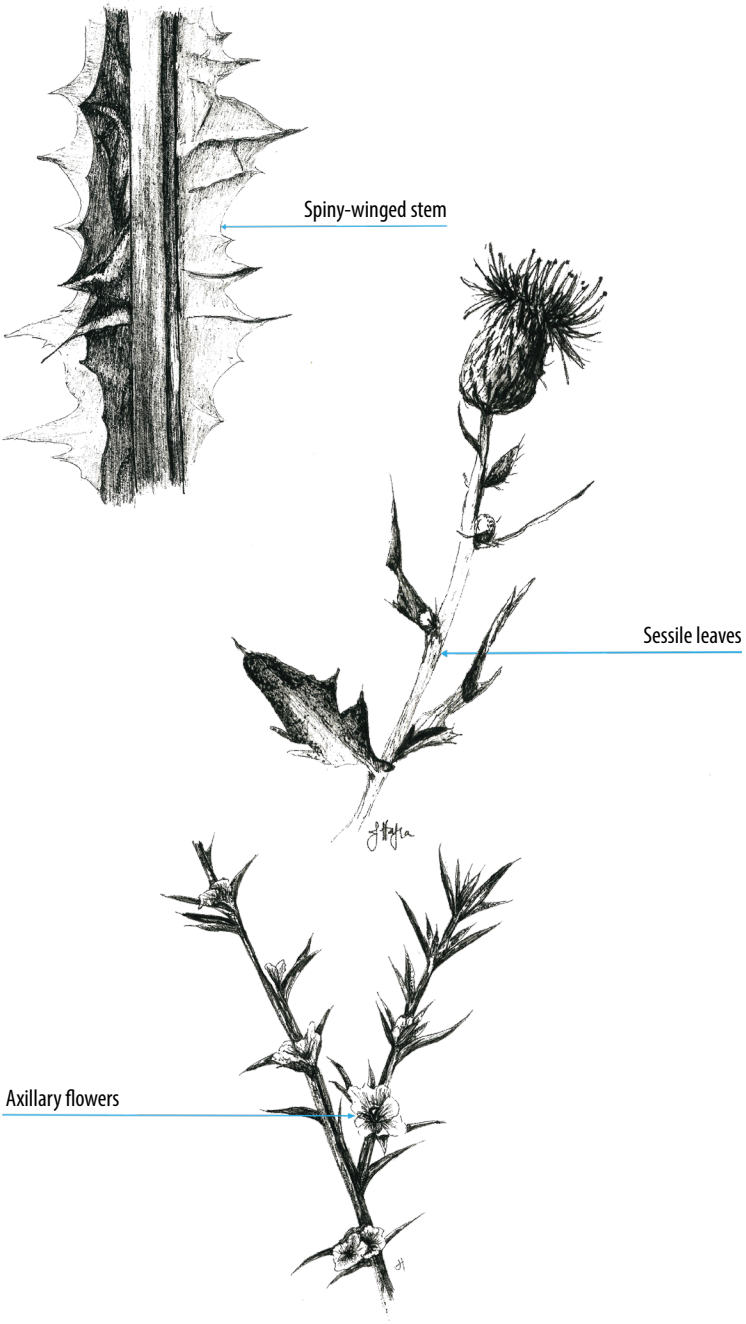
Solitary

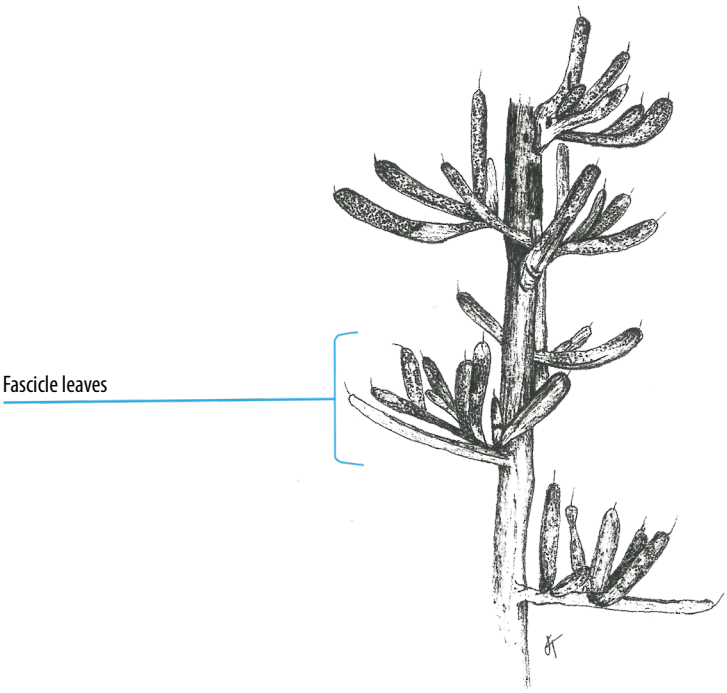
Leaf Anatomy

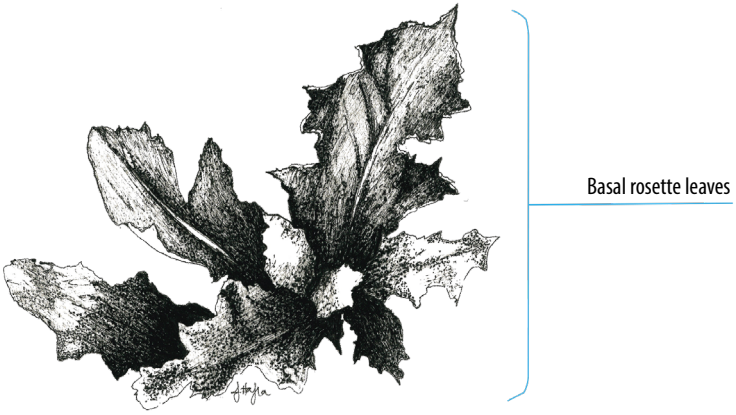


Structural Attachment Types




Spiny-winged stem
Sessile leaves
Axillary flowers


Fascicle leaves


Basal rosette leaves

Leaf Architecture

Legend

Leaf Shape

Leaf Edge Type

Lance shaped

Entire edge

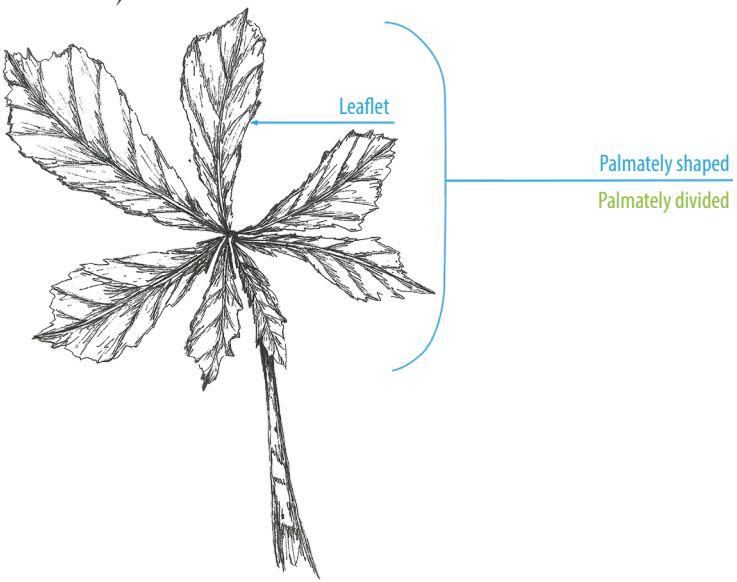
Linear

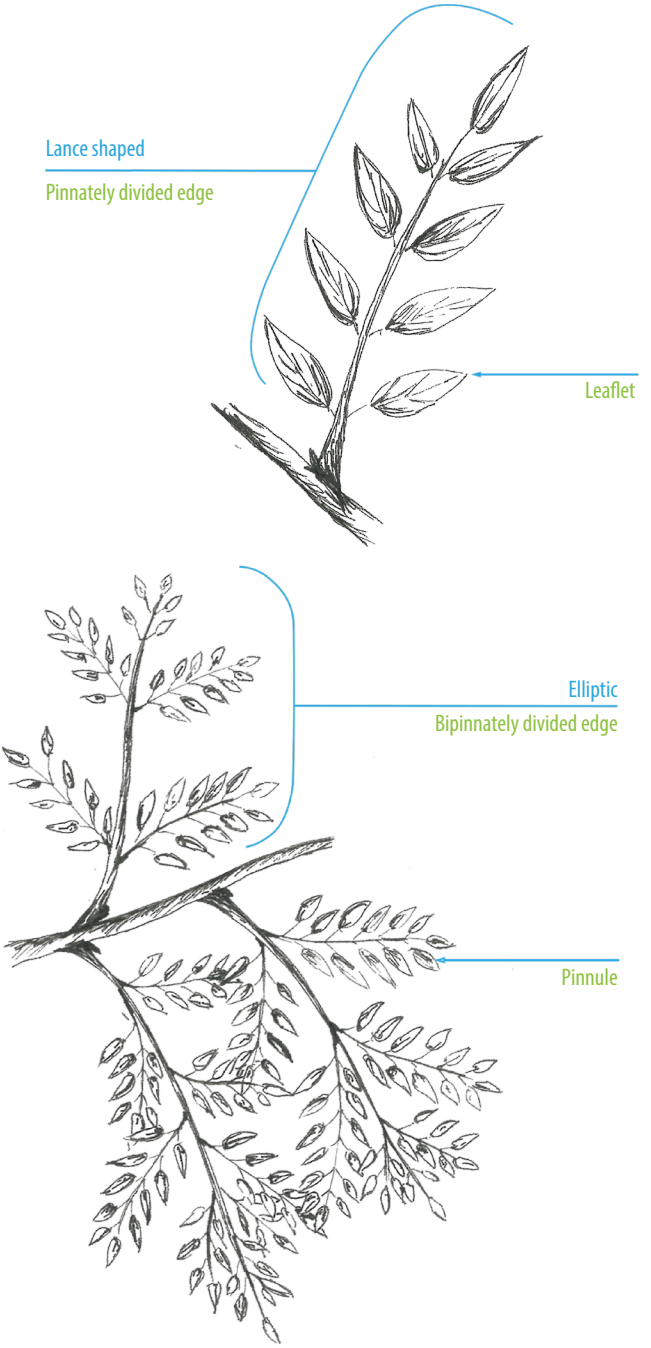
Entire edge

Legend

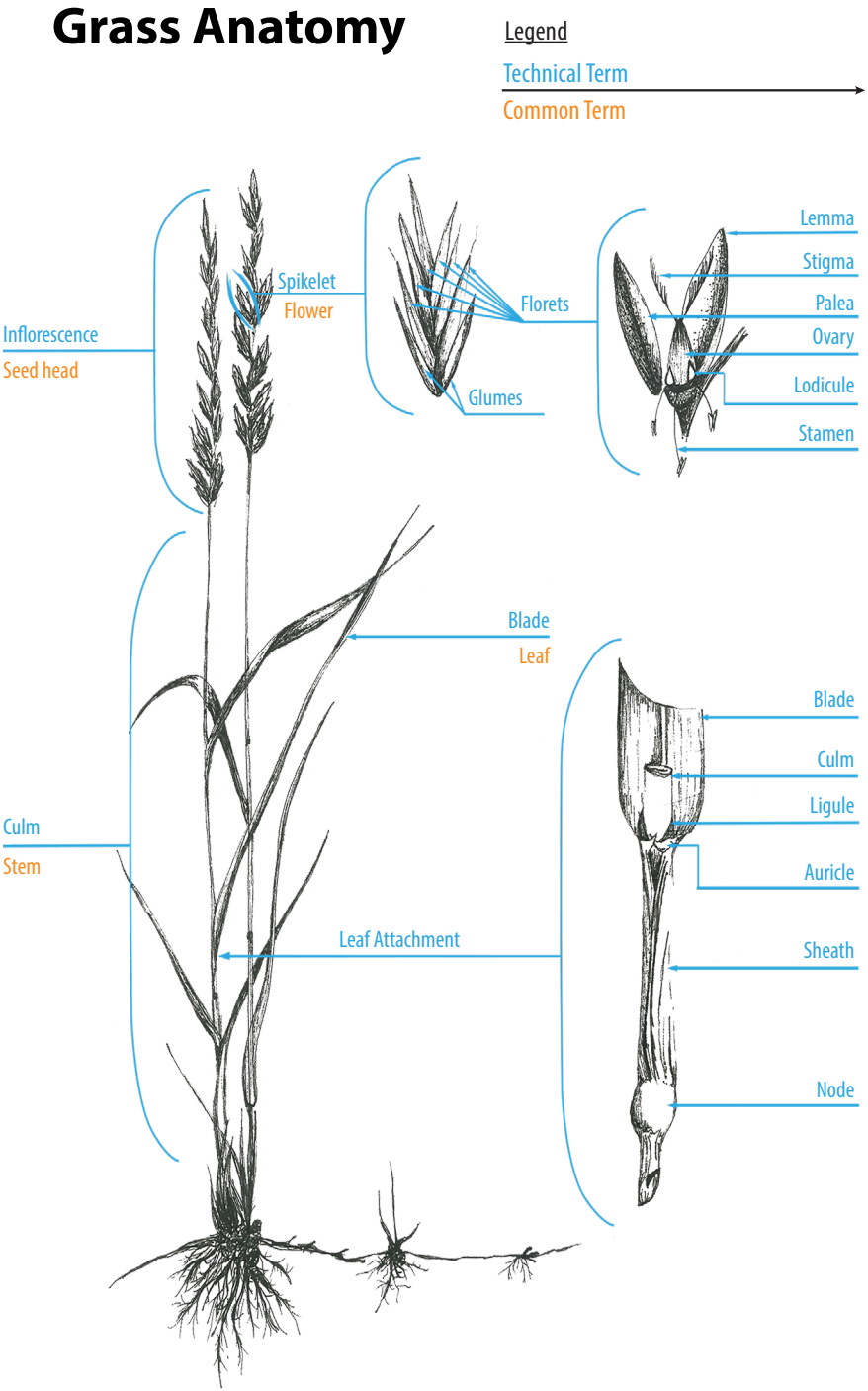
Leaf Shape

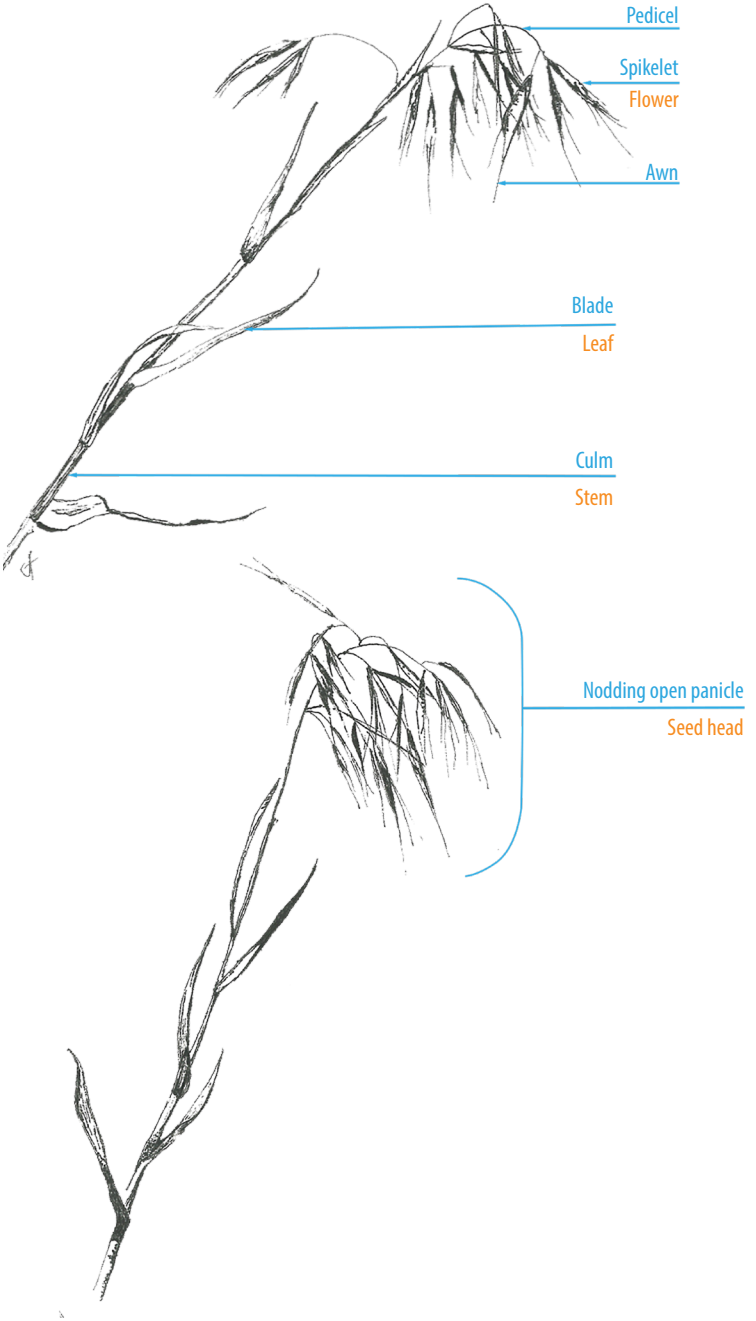
Leaf Edge Type



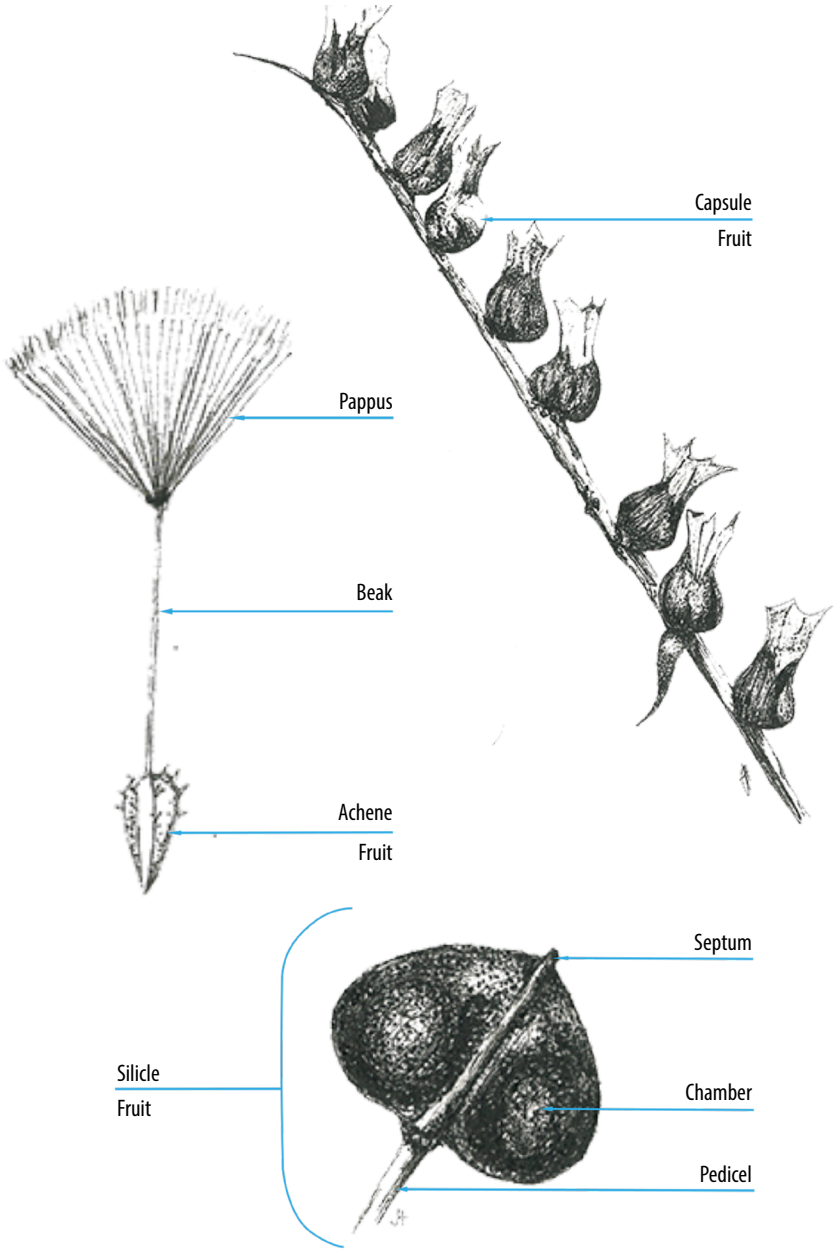

Lance shaped
Pinnately divided edge
Leaflet
Elliptic
Bipinnately divided edge
Pinnule

Grass Anatomy




Pedicel
Spikelet
Flower
Awn
Blade
Leaf
Culm
Stem
Nodding open panicle
Seed head

Fruits


Capsule
Fruit
Pappus
Beak
Achene
Fruit
Septum
Silicle
Fruit
Chamber
Pedicel