

The background of the slide is a dark green color with a pattern of lighter green, stylized leaves. The leaves are arranged in a way that they appear to be overlapping and filling the space. The text is centered on the slide.

BAHAN AJAR

BOTANI PHANEROGAMAE

The background of the slide is a dark green color with a pattern of lighter green, stylized leaves and stems. The leaves are elongated and have prominent veins, while the stems are thin and branch out. The overall effect is a dense, naturalistic texture.

MAGNOLIOPHYTA

SUBCLASS

CARYOPHYLLIDAE

SUBCLASSIS III CARYOPHYLLIDAE

KARAKTERISTIKA SUBCLASSIS CARYOPYLLIDAE

- **POLEN TRINUKLEAT (JUMLAH INTI SAAT POLEN LEPAS DARI ANTERA**
- **BITEGMIK**
- **CRASSINUCELLATE**
- **PLASENTA BASALIS/CENTRLIS**
- **TUMBUHAN HERBA – BERKAYU**
- **STAMEN TERSUSUN SENTRIFUGAL (MENGARAH KE LUAR)**
- **ORDO TERBESAR : PLASTIDA TIPE S**
- **HANYA TERDIRI DARI 3 ORDO : CARYOPHYLLALES, POLYGONALES DAN PLUMBAGINALES.**
- **TERDIRI DARI 14 FAMILI DAN 11.000 SPECIES**

CIRI-CIRI ORDO PADA SUBCLASSIS CARYOPHYLLIDAE

CARYOPHYLLALES	PLUMBAGINALES	POLYGONALES
<p>OVULUM 1 – BANYAK</p> <p>PLASENTA BASALIS</p> <p>TANPA ENDOSPERM SEJATI</p> <p>SEPAL (1) 2 – 5</p> <p>PETAL JARANG</p> <p>CAMPILOTROPUS ATAU AMPHITROPUS</p> <p>BETALAIN (ALKALOID)</p> <p>PLASTIDA TIPE P (CIRI ORDO)</p>	<p>OVULUM 1</p> <p>PLASENTA BASALIS</p> <p>ANATROPUS ATAU ORTHOTROPUS</p> <p>ADA ENDOSPERM</p> <p>TANPA BETALAIN, PUNYA PROANTOSIANIN ATAU ASAM ELAGIK</p> <p>KALIKS DAN KOROLA PENTAMER (CIRI ORDO)</p> <p>KARPEL 5, STAMEN 5</p>	<p>OVULUM 1</p> <p>PLASENTA BASALIS</p> <p>ENDOSPERMA ADA</p> <p>TEPAL 2-6</p> <p>TANPA BETALAIN</p> <p>PLASTIDA TIPE S</p> <p>STIPULA BUMBUNG (CIRI ORDO)</p>

ORDO CARYOPHYLLALES

1. FAMILI CARYOPHYLLACEA

- HABITUS HERBA, NODUS MENGGEMBUNG SEHINGGA BILA DAUN GUGUR, NODUS TETAP TERLIHAT
- DAUN BERHADAPAN
- PLASENTA CENTRALIS
- COROLA ADA / TIDAK, KALAU ADA KELIPATAN 5
- CONTOH : *Dianthus plumarius* (ANYELIR)
- BERFUNGSI UMUMNYA SBG TANAMAN HIAS

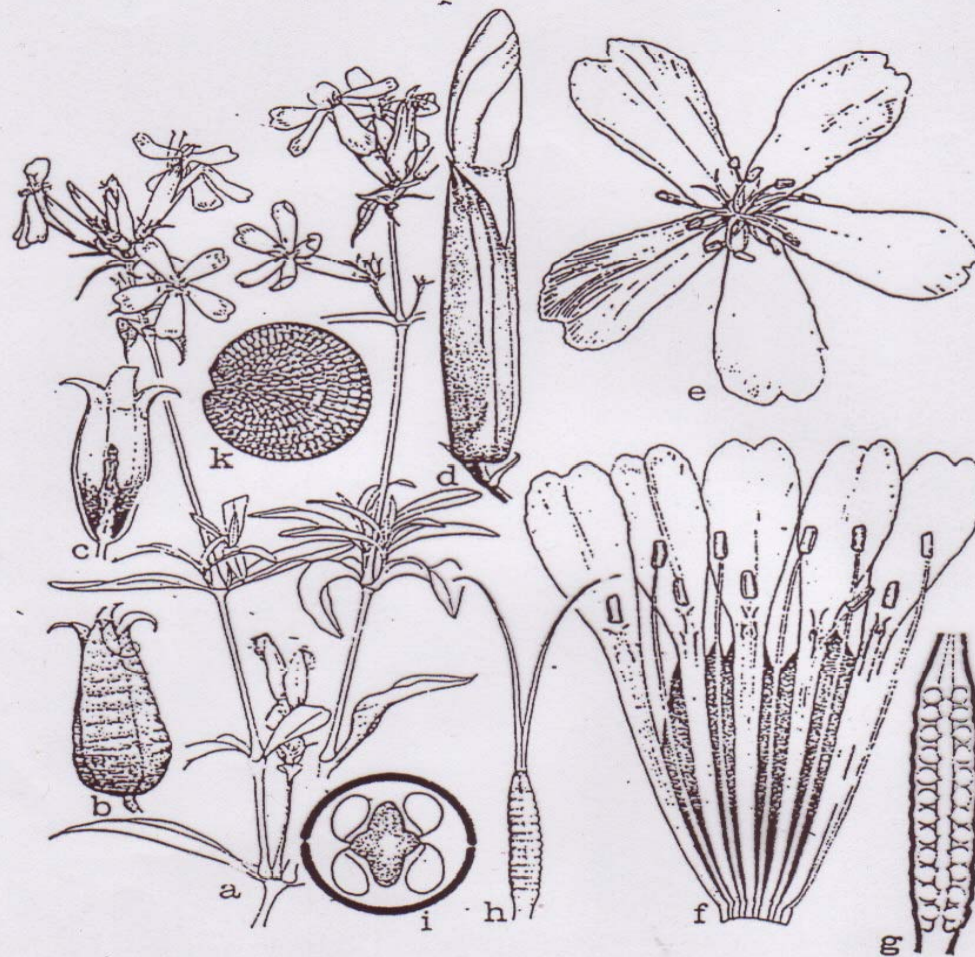


FIG. 3.10 Caryophyllaceae. *Saponaria officinalis* L. a, habit, $\times \frac{1}{2}$; b, mature fruit, after dehiscence, $\times 2$; c, long-section of mature fruit, after dehiscence, showing free-central placenta, $\times 2$; d, flower, ready to open, $\times 2$; e, flower, from above, $\times 2$; f, flower, opened to show perianth and stamens, with the pistil removed, $\times 2$; g, long-section of ovary, $\times 4$; h, pistil, $\times 2$; i, cross-section of ovary, $\times 10$; k, seed, $\times 10$.



Dianthus caryophyllus



Dianthus plumarius





Dianthus “Ballerina “ Pink



Dianthus “Fragrant Ann”



Cassytha filiformis

2. FAMILI CHENOPODIACEAE

- HERBA – SERING SUKULEN (BERDAGING /BAGIAN BATANG DAUN MENYIMPAN AIR)
- PLASENTA BASALIS
- BUNGA KECIL DAN KEHIJAUAN
- CONTOH : *Beta vulgaris* (BIT)
- *Spinacia oleraceae*



Beta vulgaris



Spinacia oleracea



Melganzenvoet sp

3. FAMILI CACTACEAE

- SUKULEN, BERDURI
- BUNGANYA TUNGGAL / UMUMNYA OVARIUM

TERTANAM DI BATANG SUKULEN →
INFERUM

- STAMEN BANYAK
- SEBAGAI TANAMAN HIAS
- CONTOH : *Opuntia sp.*

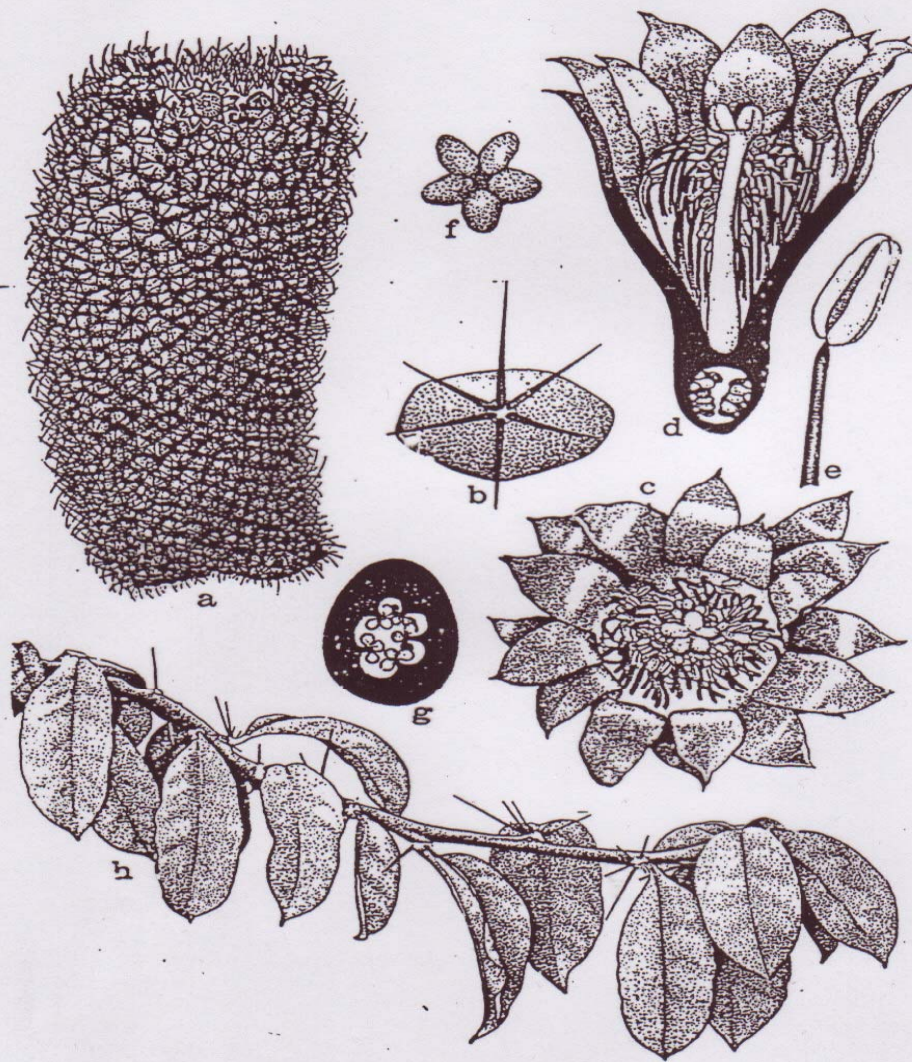
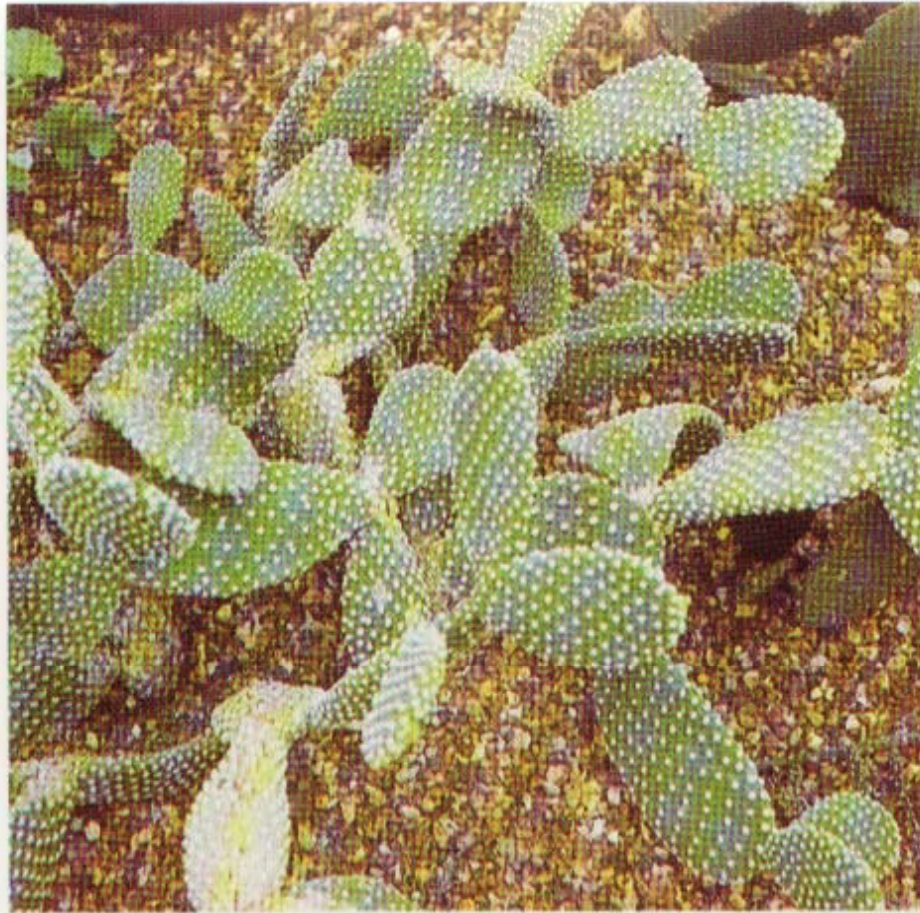


FIG. 3.5 Cactaceae. a-g, *Mammillaria polythele* Mart. a, habit, $\times \frac{1}{2}$; b, tubercle of the stem, with a terminal areole and spines, $\times 2$; c, flower, from above, $\times 4$; d, flower, in long-section, $\times 4$; e, stamen, $\times 16$; f, stigma, from above, $\times 8$; g, cross-section of ovary, $\times 6$. h, *Pereskia grandifolia* Haw., habit, $\times \frac{1}{2}$.



Opuntia microdarys



Opuntia ficus indica

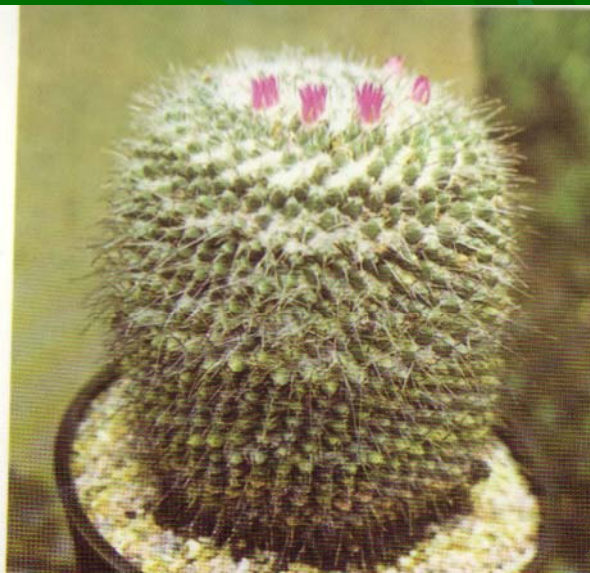




Parodia chrysanthian



Mammillaria elongata



Mammillaria hahniana



Rebutia manuscula



Rebutia

4. FAMILI AMARANTHACEAE

- HABITUS HERBA
- BUNGA MAJEMUK (SPICA, BULIR)
- PUNYA BANYAK BRACHTEA
- KALIKS DAN KOROLA TDK DPT DIBEDAKAN
- PERHIASAN BIASANYA TIPIS SPT MEMBRAN
- CONTOH : *Alternanthera ficoides* (kriminil)
Amaranthus hybridus (bayam)

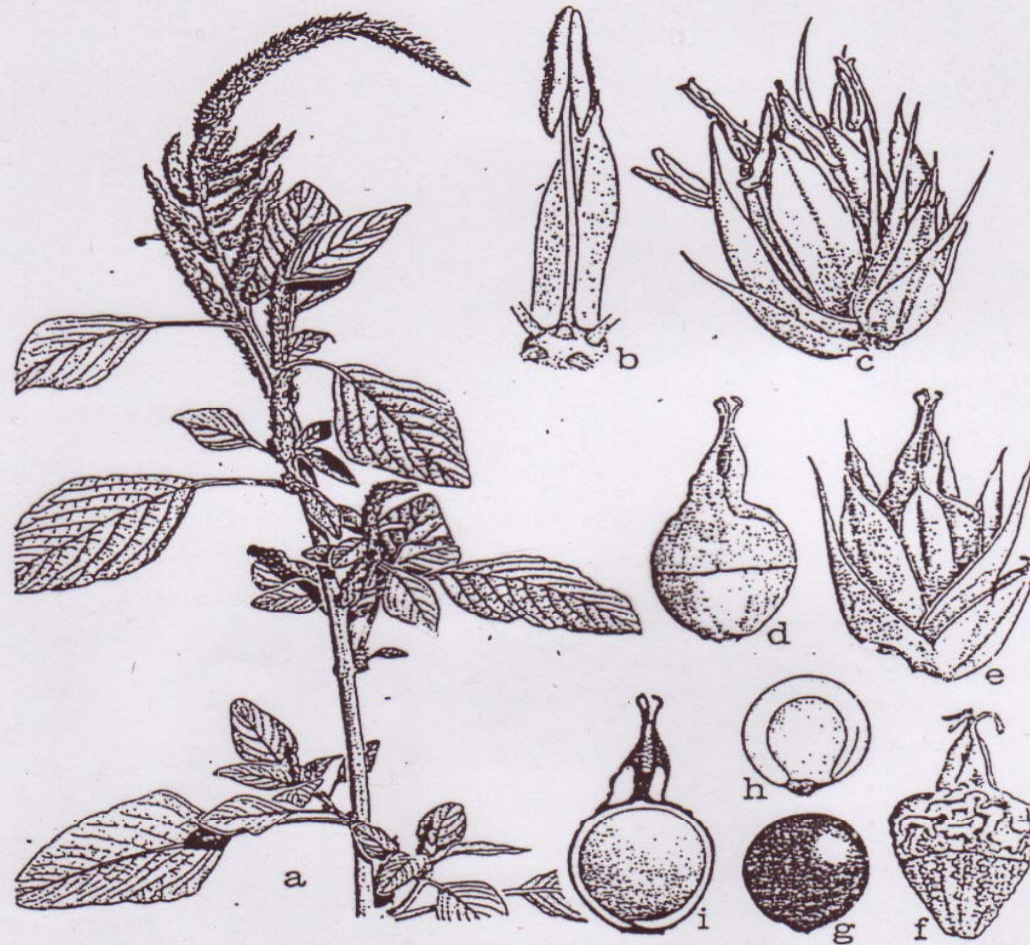


FIG. 3.7 Amaranthaceae. *Amaranthus retroflexus* L. a. habit, $\times \frac{1}{4}$; b. stamen and tepal from a staminate flower, $\times 12$; c. staminate flower, with associated bracts, $\times 12$; d, f. fruit, $\times 12$; e. post-mature pistillate flower, with associated bracts, $\times 12$; g, h, seed, external and in long-section, $\times 12$; i. fruit, in long-section, $\times 12$.



Celosia cristata



Celosia sp.



Celosia argentea Cristata



Celosia argentea Pyramidalis



Alternanthera sp.

5. FAMILI NYCTAGINACEAE

- PUNYA BRACHEA KADANG BERWARNA DAN PERSISTEN
- FILAMEN BERSATU PADA BAGIAN DASAR
- OVULUM 1 – BASALIS
- DAUN BERHADAPAN, TERBESAR
- TUMBUHAN : BASAH – BERKAYU
- CONTOH : *Bougenvillea spectabilis*
Mirabilis jalapa

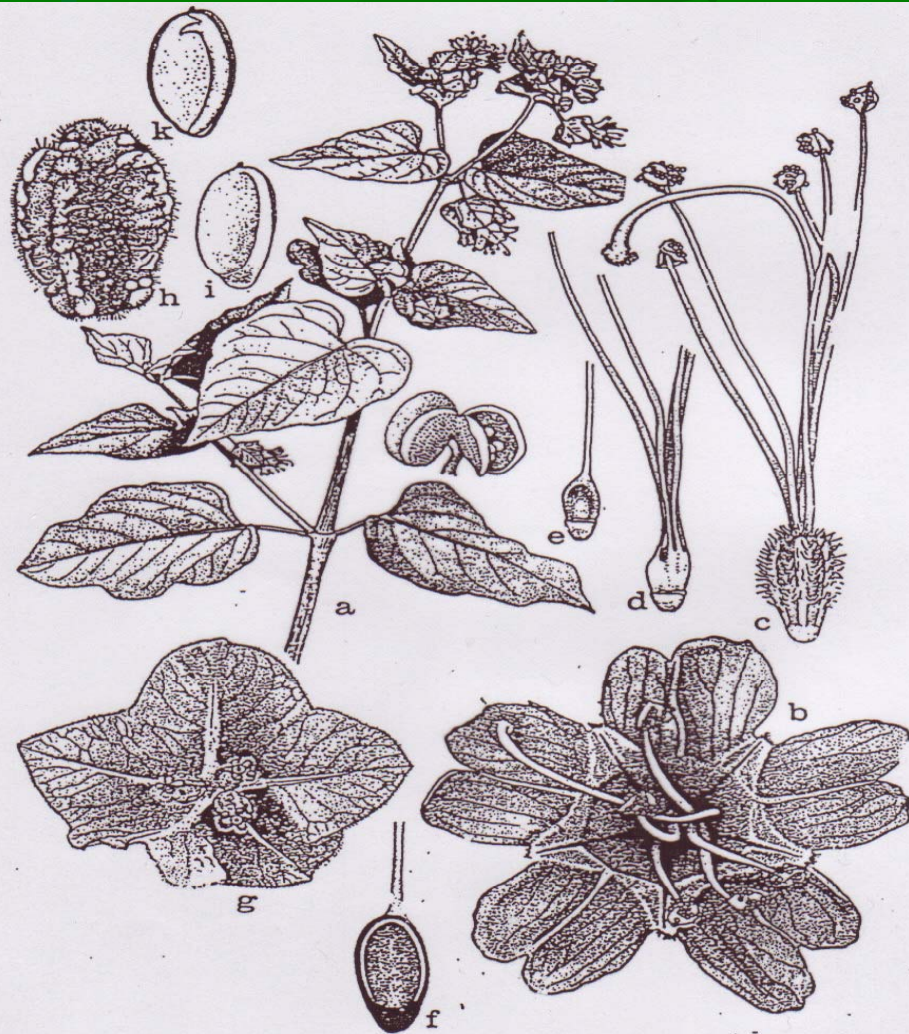


FIG. 3.3 Nyctaginaceae. *Mirabilis nyctaginea* (Michx.) MacMillan. a, habit, $\times 1$; b, flower, from above, $\times 6$; c, side view of flower, with calyx-lobes removed, $\times 6$; d, base of flower, with calyx completely removed, showing basally connate filaments surrounding the ovary, $\times 6$; e, ovary and part of style, $\times 6$; f, ovary in long-section, $\times 12$; g, involucre, with 3 anthocarps, $\times 2$; h, anthocarp, $\times 6$; i, seed, $\times 6$; k, seed in long-section, showing peripheral embryo, $\times 6$.



Bougenvillea spectabilis



Mirabilis jalapa

6. FAMILI PORTULACACEAE

- TUMBUHAN BASAH
- DAUN TUNGGAL SERING BERDAGING, LETAK BERHADAPAN, TERSEBAR ATAU ROSET
- BUNGA TUNGGAL
- STAMEN SEBANYAK PETAL / BANYAK SEKALI TERLETAK DI MUKA PETALUM
- STILUS DAN STAMEN 2 – 5
- CONTOH : *Portulaca sp*

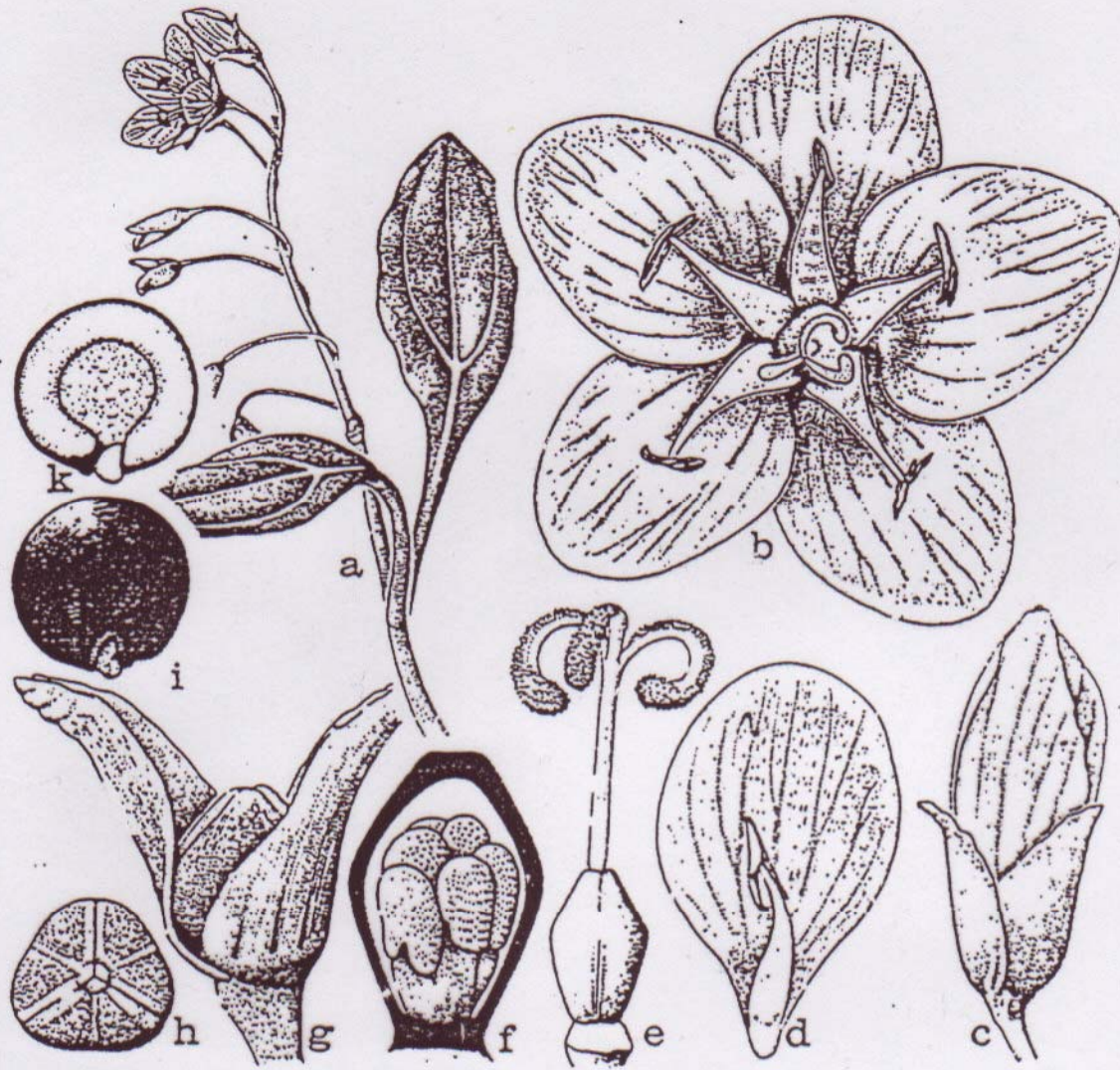


FIG. 3.8 Portulacaceae. *Cliftonia caroliniana* Michx. a, habit, $\times 1$; b, flower, from above, $\times 4$; c, flower bud, $\times 4$; d, petal, with attached stamen, $\times 4$; e, pistil, $\times 8$; f, ovary in long-section, $\times 16$; g, h, fruit, $\times 4$; i, k, seed, external and in section, $\times 8$.



Portulaca villosa



Talinum sp

ORDO POLIGONALES

1 **FAMILI POLYGONACEAE**

- HERBA, BUKU MENGSEMBUNG
(TEMPAT NEMPEL STIPULA) – OCHREA
- KALIKS → PETALOID (KALIKS SEPERTI KOROLA) → TEPAL
- KALIKS BIASANYA 2 LINGKARAN
- CONTOH : *Antigonon leptopus* (air mata pengantin)



FIG. 311 Polygonaceae. *Polygonum cuspidatum* Sieb. & Zucc. a, habit, $\times 1$; b, portion of stem and leaves, showing sheathing stipules, $\times 1$; c, d, two views of staminate flower, $\times 10$; e, f, two views of pistillate flower, $\times 10$; g, pistil, the ovary in long-section, $\times 10$; h, i, diagrammatic sections of fruit and seed, $\times 10$; k, mature fruit, $\times 5$.