Myricaceae Blume
(Bayberry Family)

Aromatic *trees or shrubs;* triterpenes and sesquiterpenes present; tannins present; roots usually with nodules that contain nitrogen-fixing bacteria. *Peltate scales with a glandular, usually golden-yellow, swollen head,* containing various aromatic oils and/or resins. *Leaves alternate, simple* (deeply lobed in *Comptonia), entire to serrate, with pinnate venation;* stipules absent, or present *(Comptonia).* Inflorescences indeterminate, often spikelike or catkinlike, erect to ± pendulous, axillary, staminate and carpellate flowers usually in separate inflorescences. *flowers unisexual (plants monoecious or dioecious),* radial, inconspicuous, 1 in the axil of each inflorescence bract. *Perianth lacking,* except in *Canacomyrica* where represented by 6 minute tepals at ovary apex, but flowers usually associated with bracts and bracteoles. *Stamens 2-9,* but appearing more numerous due to clustering of several flowers; pollen grains usually triporoporate. *Carpels 2, connate; ovary apparently superior* (due to loss of perianth: *Comptonia), becoming inferior due to intercalary meristematic activity around and/or beneath the gynoecium, forming a cuplike structure,* which raises the bracteoles up as part of the fruit wall *(Gale), or inferior even at the time of pollination, due to early intercalary activity* that forms a thick structure with *(Myrica)* or without *(Canacomyrica)* papillae, with basal placentation; stigmas 2, elongated. Ovule 1 per gynoecium, orthotropous, with 1 integument. Nectaries lacking. *Fruit a drupe, covered either with waxy or fleshy papillae, or an achene,* not associated with conspicuous bracteoles *(Myrica, Canacomyrica),* with 2 bracteoles fused to achene *(Gale),* or simply surrounding fruit *(Comptonia);* endosperm lacking, or nearly so (Figure 8.86).

Floral formula: Staminate: *, -0-, 1-9, 0
Carpellate: *, -0-, 0,@; drupe, achene

Distribution and ecology: Widespread in temperate to tropical regions; often early successional or in wetlands; plants associated with nitrogen-fixing, filamentous bacteria in root nodules.

Genera/species: 4/40. *Major genus: Myrica* (35 spp.).

Economic plants and products: Aromatic wax is extracted from the fruits of several species of *Myrica* (bayberry, wax myrtle, candleberry); a few species have edible fruits. Several species of *Myrica* are used as ornamental shrubs.

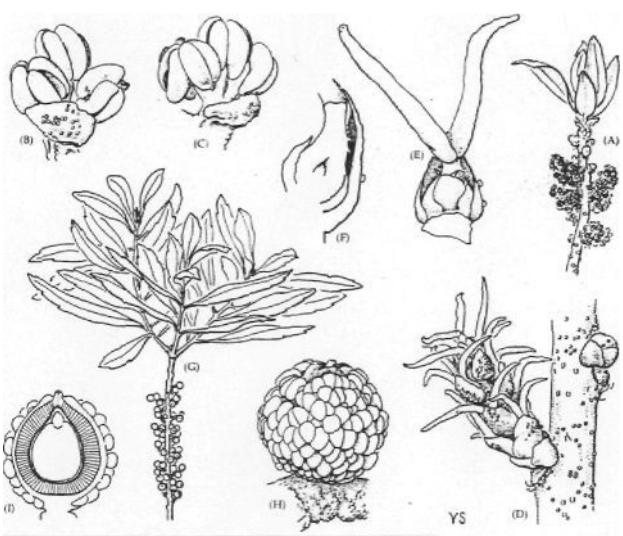

Figure 8.86 Myricaceae. (A-F) *Myrica pensylvanica:* (A) branch with staminate catkins (x 1.5); (B) staminate flower (x 14.5); (C) staminate flower, lateral view (x 14.5); (D) carpellate catkin (x 9); (E) carpellate flower with bracts (x 22); (F) carpellate flower in longitudinal section, showing basal ovule (x 30). (G-I) *M. cerifera:* (G) branch with fruits (x 0.75); (H) drupe (x 12); (I) fruit in longitudinal section, note waxy papillae, endocarp (indicated with numerous radiating lines), and embryo (x 12). (From Elias *1971, J. Arnold Arbor. 52:p.310.*)