

Table 2.6. Dichotomous key to common genera of Hawaiian intertidal and subtidal algae. Definitions of bolded words can be found in Table 2.3. Diagrams of algae morphology can be found in Figs. 2.18 through 2.22.

1. Thallus is calcified and may be hard in texture, have white bands, or form bubbles in the presence of vinegar.....(2)
1. Thallus is not calcified(5)
2. Thallus forms a thin hard crust on rock or coral rubble.....(<i>Crustose Coralline Algae</i>)
2. Thallus does not form a thin hard crust on rock or coral rubble.....(3)
3. Blades are fan shaped with visible bands of calcium carbonate(<i>Padina</i>)
3. Blades are not fan shaped..... (4)
4. Branches are segmented . Each segment is flattened.....(<i>Halimeda</i>)
4. Branches are dichotomous without segments and cylindrical in shape.....(<i>Liagora</i> or <i>Galaxaura</i>)
5. Thallus is dichotomously branched.....(6)
5. Thallus not dichotomously branched.....(7)
6. Branches or blades have a thickened midrib(<i>Dictyopteris</i>)
6. Branches or blades do not have a thickened midrib(<i>Dictyota</i>)
7. Thallus contains many small pneumatocysts(<i>Sargassum</i>)
7. Thallus does not have pneumatocysts(8)
8. Thallus has many cylindrical or filamentous branches.....(9)
8. Thallus is not made up of cylindrical or filamentous branches.....(14)
9. Branches are thin and filamentous(10)
9. Branches are thick or have many small thin filaments in whorls around the main branch.....(11)

10. Algae has many thin smooth **filaments**, often forming tufts.....(*Cladophora*)
10. Branches are thin and cylindrical, often having small hooks on the end of the branch.....(*Hypnea*)
11. Branches have many small **filaments** in whorls, giving alga a furry appearance
underwater.....(*Wrangelia*)
11. Branches lack small filaments.....(12)
12. Branches have tiny spine-like or bulb protrusions.....(13)
12. Branches lack spine-like or bulb protrusions.....(*Gracilaria*)
13. Branches have tiny spine-like protrusions.....(*Acanthophora*)
13. Branches have tiny bulb protrusions.....(*Laurencia*)
14. **Thallus** forms a spongy fan shape.....(*Avarainvillea*)
14. **Thallus** is not fan shaped.....(15)
15. **Thallus** has cone or cup shaped branches with spike-like protrusions.....(*Turbinaria*)
15. **Thallus** lacks spike like protrusions..... (16)
16. **Thallus** forms a netlike mesh of **filaments**. The **thallus** is somewhat crunchy to the
touch.....(*Microdictyon*)
16. **Thallus** forms blade like folds, occasionally forming hollow cup shapes. The **thallus** is firm to the
touch.....(*Dicytosphaeria*)