Macroalgae in Kongsfjorden

1. Giant sporophytes of the perennial kelp *Laminaria digitata* (left person: Michael Y. Roleda, right person: Ansgar Gruber; photo: Christian Wiencke)
2. Green alga *Ulvaria obscura* in shallow waters (Photo: Max Schwanitz)
3. Stands of *Alaria esculenta* surrounded by a belt of the brown alga *Desmarestia viridis* on barren ground densely populated with green sea urchins (*Strongylocentrotus droebachiensis*). Sulphuric acid, which is produced and stored by *D. viridis*, induces escape responses, thereby protecting the *Alaria* stands from sea urchin grazing (see chapter 11; photo: AWI-diving group)
4. Sporophytes of the annual kelp-like brown alga *Saccorhiza dermatodea* (Photo: AWI-diving group)
5. Seaweeds incubated in Perspex-tubes transmitting full sunlight, sunlight depleted of UVB radiation or sunlight depleted of UVB and UVA radiation, i.e. exposed to photosynthetically active radiation only (see chapter 10; photo: AWI-diving group)
6. Sporophytes of the perennial kelp *Alaria esculenta* growing at the Old Pier in Ny-Ålesund (Photo: Max Schwanitz)
7. Red alga *Devaleraea ramentacea* in shallow waters (Photo: Max Schwanitz)
8. Red alga *Phycodrys rubens* grows down to at least 30 m depth (Photo: Peter Leopold)