



water. The yacht in Photo 6.11 is a big, powerful boat and the wind is abeam, and yet most of its driving force is being lost in pushing her hull over, under and through the steep waves. The Swinge is a notorious tidal race; on the day of the photo it was in a comparatively gentle mood because the current was only flowing against a slight swell.

When a boat is running through an overfall against the current, with waves rolling up astern, there are two main risks. A wave that is very steep could combine with the boat's stern wave and break against the stern, possibly spilling over the deck or into the cockpit. Also, the boat will be inclined to broach because the orbital motion of the water (as illustrated earlier in Fig 3.6) reduces the effect of the rudder, just as the boat is nose-down on the face of each wave. Increasing speed reduces the risk of broaching but it might also increase the chance of waves breaking close astern, or alongside. The waves near to the stopping line are short and high but also slow-moving, so that their crests linger while overtaking the boat. If the conditions appear to be dangerous, it may be sensible to reverse course and exit the overfall quickly, going downstream with the aid of the

**6.11** A 12m yacht bounces through the Swinge tidal race, on a relatively calm day. (West of Alderney, Channel Islands)

current, rather than persist with slow progress upstream, towards the stopping line.

A boat that continues upstream, right through an overfall, is likely to draw clear of breaking crests when it finally passes the stopping line. This is when the crew start to relax, but the current is at its strongest and they may still be surrounded by smooth, steep waves. Any change of course should be executed very carefully, making sure that the boat does not get pulled back into the rougher water.

Excessive hurry often causes problems, and sailing fast through an area of broken water will also give the crew an unnecessary soaking. On one occasion, while taking advantage of a strong tide off northern France, my wife and I experienced wild conditions in the Barfleur Race, where the stream was running hard against wind and swell. In