



*Bowsprits (left, the Weta) and boom-less mainsails (right, Hobie Getaway) are the mark of a 21st-century beach boat.*

## Rig, Spar, and Sail Design Weigh Heavily on Performance

**M**ost multihulls have mainsail-dominated sailplans, and the fully battened high-aspect-ratio sails have even reshaped how monohull sailors look at mainsails. Recognizing that there's more breeze aloft, and that there's significant form stability to a large sail area, multihull designers and sailmakers have conspired to power-up even modest-size sailplans. The full battened "fat head" sail that began in multihulls, was adapted to high-speed windsurfing, and was finally embraced by monohull sailors, who had to cope with an interfering backstay.

Sprit technology has flowed in the other direction—in this case from the monohull community to multihulls. Conventional spinnakers were less popular because faster multihulls build an apparent wind that brings the angle forward of the beam, even though the true wind is off the stern quarter. But by adding a sprit and a light roller-furling reacher, or a sock-deployed asymmetric spinnaker, a sizable increase in reaching sail area can be added. This is the magic touchstone that can turn 10- to 12-knot conditions into absolute exhilaration. The furling or snuffing light-air sail also allows the crew to bridle all the extra horsepower with a simple pull on the endless reefing or snuffing line. (See *PS* March 2008.)

There's been much said recently about the automotive hazard

referred to as unintentional acceleration. Multihull sailors also have a need to be able to decelerate when necessary. The fine line between full speed and full-blown problems can arrive with an unanticipated gust. A knockdown is a usually a recoverable experience for a monohull sailor, but for multihull sailors, the outcome is seldom rosy. Only smaller boats have "self recovery" capability. All multihull sailors should spend some time sailing beach cats, developing the "feel" for stability and discovering why flying a hull is exhilarating on a beach cat but can be far more costly on a larger cat.

Another sail innovation we liked aboard the beach cats we reviewed was the elimination of the boom. Each of these boats derived respectable mainsail performance by relying on a multiple set of full battens. The elimination of the boom was both a sensible safety feature and a simplification in setting up the boats. The value of not having a head-level boom cross from side to side during a double-digit jibe is obvious to anyone who's had a near miss—or worse yet an encounter—with the appendage. Each of the boats we reviewed also had adopted a roller-furling headsail systems for their small fractional jibs and their larger sprit-mounted reaching sails, a feature that significantly improved sail handling.