Drag reduction by reconfiguration in gorgonians JULIEN DERR, ANNEMIEK J. M. CORNELISSEN, Université Paris Diderot, CLAUDE BOUCHON, YOLANDE BOUCHON, Université des Antilles et de la Guyane, JÉRÔME FOURNIER, CNRS/MNHN, LIONEL MOISAN, Université Paris Descartes, PASCAL JEAN LOPEZ, CNRS/MNHN, STÉPHANE DOUADY, Université Paris Diderot — Gorgonians are polyp colonies over a flexible branched skeleton. Attached to the coral reefs, they are under the continuous oscillations of the swell. We investigate experimentally the drag, under continuous force traction, of *Gorgonia Ventalina*, which is particular as its branches are highly reconnected to form a flat net (see fan), perpendicular to the swell, and compare it with another branched species (candelstick). We observe a drag which is linear with speed, indicating a strong reconfiguration, which we also documented by imaging the gorgon shape, and transients showing that the gorgon do not always evolve along quasi-static curves. Depending on the size and shape of the gorgon, we observe different details, from a more rigid small gorgon to a flexible long one. A large gorgon with detached fingers, closing on themselves under the current, presents characteristics surprisingly close to a rigid candlestick one, with not much reconfiguration.