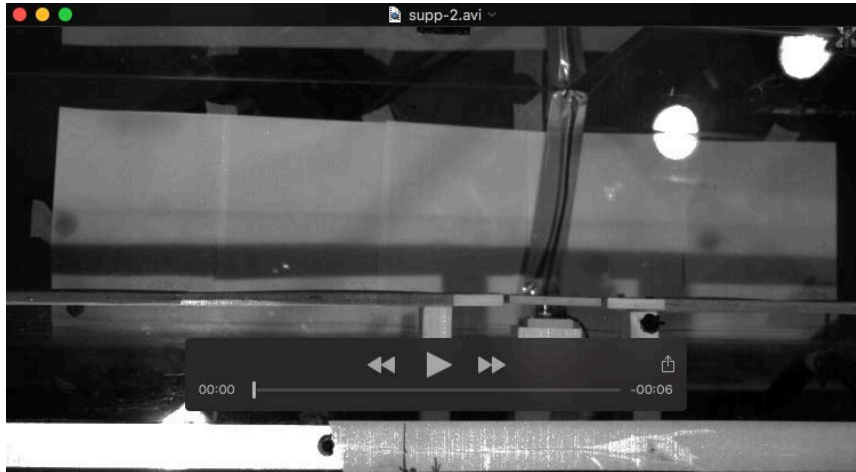
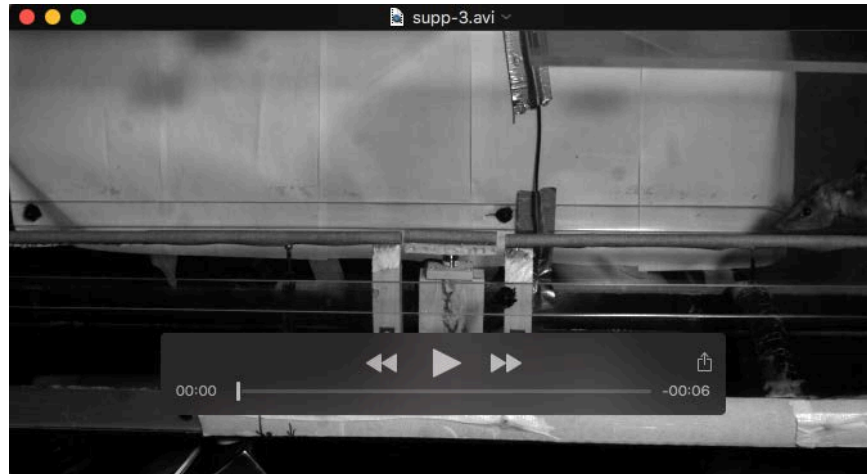


Figure S1. Impulse determining the relative contribution of each of the feet where possible, or for pairs of feet where they touch the force plate simultaneously for the Northern quoll (*Dasyurus hallucatus*). Impulse was calculated as the integral of the force trace with respect to time for the local a) fore-aft, b) vertical, and c) lateral directions for the inclined platform (light) and inclined pole (dark). In the local frame of reference, the fore-aft-axis is aligned with the inclined platform or pole. Positive lateral impulses indicate force directed towards the left and vice versa. Data represents raw (untransformed) data, see methods for details. Boxes represent the median, with hinges representing the first and third quartiles; whiskers represent the 95% CIs, and dots represent outliers.



Movie 1. This video shows the Northern quoll climbing the inclined platform. The inclined platform was a 90 mm wide plank of wood, covered in fine sandpaper (P120) to provide traction at a 38° angle, and represented a wide surface larger than the length of the hindfoot. Central to the platform is the force transducer (Nano-17 titanium, ATI instruments) placed level with the trackway, with a 90 x 90 mm platform attached to it. The Northern Quoll strikes this platform with the front left foot, then both hindfeet.



Movie 2. This video shows the Northern quoll climbing the inclined narrow pole. The inclined pole was a 12 mm diameter wooden dowel running the length of the box at a 38° angle, and represented a narrow surface, smaller than the length of the hindfoot. Central to the platform is the force transducer (Nano-17 titanium, ATI instruments) placed level with the trackway, with a 90 mm long doweling attached to it. The Northern Quoll strikes this doweling with the front right foot, but neither hindfeet wholly.