

## Featured 3D Picture

### Hummingbirds, by John Hart (USA)



*Broad-Tailed (Female), Calliope (Male) and Rufous (Male) Hummingbirds.*



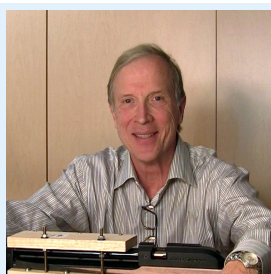
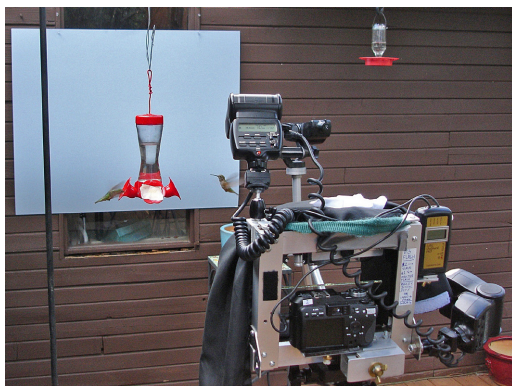
These images, made in the summer of 2007, were part of an effort to photograph Colorado hummingbirds for a show entitled “Jewels of the Mountain Sky”. Three different species showed up on their migratory routes: the Broad-tailed, the rambunctious Rufous, and the tiny Calliope (the smallest bird in the USA).

Apart from some work in the field, most images for the show were made on a deck at 8,000 feet elevation northwest of Boulder. It was a feeder setup with an artificial sky. Two Sony V3 cameras set at 135mm equivalent FL, were triggered by a

LANC Shepherd synchronizer, and fired three 0.3 millisecond flashes (two on the bird and one on the background). A homebuilt over-under macro-beamsplitter allowed for a stereo base of 1.5cm.

There was much action around the feeder, including birds jousting for position, posturing for dominance, and making threat and mating displays. The birds got used to the rig and the flashes, and only a few out of hundreds of shots were lost, mostly due to flash sync errors. The broad-taileds (the only local nester)

produced many youngsters. It was a treat to watch them mature, learn the ‘ropes,’ and get ready for the long flight to winter-over in South America.



*John Hart is a retired professor of Atmospheric and Ocean Sciences at the University of Colorado. He has been passionate about 3D since 1998. His initial efforts concentrated on adventure sports like canyoneering, rock climbing, and white water kayaking. His scientific and artistic projects often use innovative DIY devices. These have included computer controlled sliders for ‘flying’ around and into orchids, sub-microsecond flashes for stereoscopic high-speed ballistics, and tiny beamsplitter rigs for rail- and cable-cams used in model railroad videography. He pioneered 3D time-lapse (Fastlife, 2008), which was later employed in slider-enhanced 3D milky-way and very wide-base storm-chasing videos (2017). He has produced over 100 stereo programs. A 4K compendium of many of his best shows is available at [www.hart3d.com](http://www.hart3d.com).*