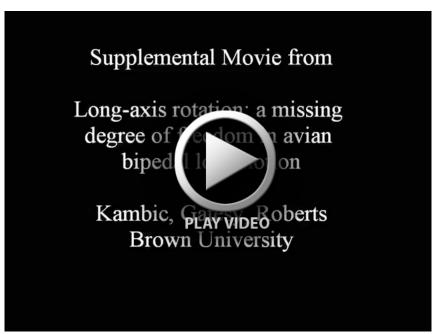


**Movie 1. Overhead views of the five maneuvers discussed in this study.** Bones disappear as they leave the view of one or both X-rays. Sequences are not to scale with each other.



**Movie 2. Three sequences of XROMM animation from a complex maneuvering trial.** First sequence: video from X-ray system 2 of a guineafowl maneuvering within the X-ray volume. Note the conical markers implanted in the pelvis and hind limb bones. Animated bone models appear over the images and confirm the accuracy of the reconstructed motion. Second sequence: the same maneuvers viewed with a standard light camera. The animated models are correctly registered as if the viewer can see through soft tissue to the bones beneath. Third sequence: the entire maneuvering trial (see Fig. 4) with the limbs moving relative to a stable pelvis, illustrating the variety of non-sagittal poses and contribution of LAR.