Prey life stage estimation decision tree: Prey life stage reported? Yes (23% data) No (77% data) Use reported prey life stage Prey size measured & reported? Yes (6% data) No (71% data) Use prey length to estimate life stage Prey trait is the same or different for across life stages? Yes (41% data) No (30% data) No further life stage estimation required Predator size measured & reported? Yes (16% data) No (14% data) Use study metadata to infer range in Use measured predator body size (albacore min, albacore body size (min, max and max and mean FL)* mean FL) from regional catch data *9 of the studies that provided min / max FL, did not provide means, these were also estimated at this step. Estimate albacore gape width and length limit from measured or estimated albacore body size Infer prey size consumed and life stage from estimated gape limit

5 larval life stages, 210 juveniles, and 93 adult prey consumed.