The development of ACAP seabird bycatch indicators, methodological approaches and reporting requirements

Anton Wolfaardt, Igor Debski, Wieslawa Misiak, Nathan Walker, Marco Favero

Document: WCPFC-SC14-2018/EB-WP-15

Agreement on the Conservation of Albatrosses and Petrels

Bycatch Data Reporting and Assessment

What exactly are the objectives and how best to achieve them?

Measuring the success of the Agreement…..

Data issues

ACAP

ACAP bycatch reporting objectives:

- Routinely review and update information on levels and trends of bycatch of ACAP species

- Assess the effectiveness of bycatch mitigation measures used in these fisheries

Agreement on the Conservation of Albatrosses and Petrels

Indicators of seabird bycatch

- Bycatch Rates: Birds caught Per Unit Fishing Effort (e.g. number of birds caught per 1000 hooks set)

- Total number of birds killed per year fleet (preferably by species)

Estimating total number of birds killed

- Simple Ratio Estimate
- Stratified Ratio Estimate
- Model Based Extrapolation
- Quantitative Risk Assessment

Agreement on the Conservation of Albatrosses and Petrels

General Considerations

- Level of taxonomic resolution – species level ID best, but coarser ID still useful
- Undetected mortality
- Data gaps and unobserved strata – for both bycatch rates and fishing effort
- Several assumptions needed to fill gaps – often leads to high but unquantified uncertainty in bycatch estimates

Agreement on the Conservation of Albatrosses and Petrels

Proposed categorisation for birds unidentified to species level

Seabird sp	Large albatross sp	*Diomedea sp*	*Diomedea sanfordi*	Northern Royal Albatross
			Diomedea epomophora	Southern Royal Albatross
			Diomedea exulans	Wandering Albatross
			Diomedea antipodensis	Antipodean Albatross
			Diomedea amsterdamensis	Amsterdam Albatross
			Diomedea dabbenena	Tristan Albatross
	Smaller albatross sp	*Phoebetria sp*	*Phoebetria fusca*	Sooty Albatross
			Phoebetria palpebrata	Light-mantled Albatross
		Phoebastria sp	*Phoebastria irrorata*	Waved Albatross
			Phoebastria nigripes	Black-footed Albatross
			Phoebastria immutabilis	Laysan Albatross
			Phoebastria albatrus	Short-tailed Albatross
		Thalassarche sp	*Thalassarche chlororhynchos*	Atlantic Yellow-nosed Albatross
			Thalassarche carteri	Indian Yellow-nosed Albatross
			Thalassarche chrysostoma	Grey-headed Albatross
			Thalassarche melanophris	Black-browed Albatross
			Thalassarche impavida	Campbell Albatross
			Thalassarche bulleri	Buller's Albatross
			Thalassarche cauta	Shy Albatross
			Thalassarche steadi	White-capped Albatross
			Thalassarche eremita	Chatham Albatross
			Thalassarche salvini	Salvin's Albatross
	Petrel sp	*Macronectes sp*	*Macronectes giganteus*	Southern Giant Petrel
			Macronectes halli	Northern Giant Petrel
		Procellaria sp	*Procellaria aequinoctialis*	White-chinned Petrel
			Procellaria conspicillata	Spectacled Petrel
			Procellaria parkinsoni	Black Petrel
			Procellaria westlandica	Westland Petrel
			Procellaria cinerea	Grey Petrel
		Shearwater *sp*	*Ardenna creatopus*	Pink-footed Shearwater
			Puffinus mauretanicus	Balearic Shearwater

Advice and tools to guide and support seabird bycatch mitigation

http://www.acap.aq/en/resources/bycatch-mitigation

Reporting Framework

Estimates and associated metadata

Sufficiently flexible

Work in progress

ACAP