

THE
PEW
CHARITABLE TRUSTS

Global Fisheries: Management Challenges and a Pacific Snapshot

Adam Baske

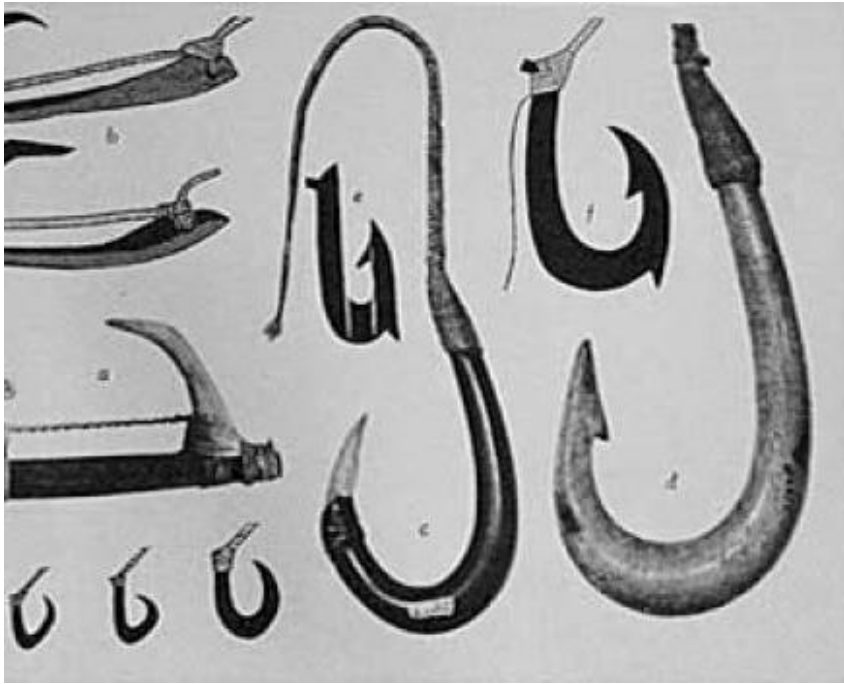
Pew Charitable Trusts

November 5, 2013

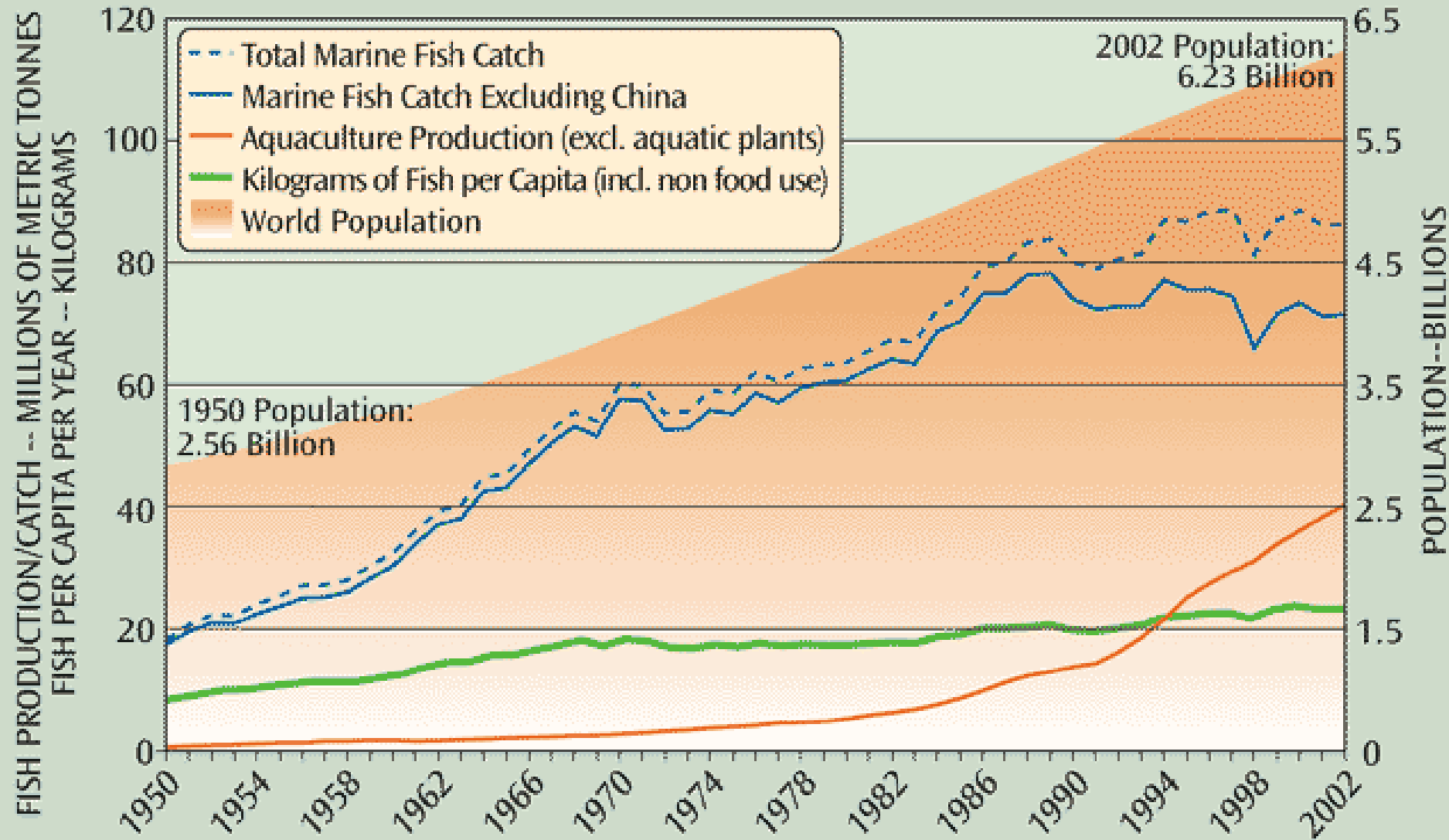
Overview

- **Overview of Global Fisheries**
- **International Fisheries Management**
 - “illegal” fishing challenges
- **Case Study – China in the Western and Central Pacific tuna fishery**





TOTAL WORLD FISHERIES AND AQUACULTURE PRODUCTION AND KILOGRAMS OF FISH CATCH PER CAPITA 1950 – 2002

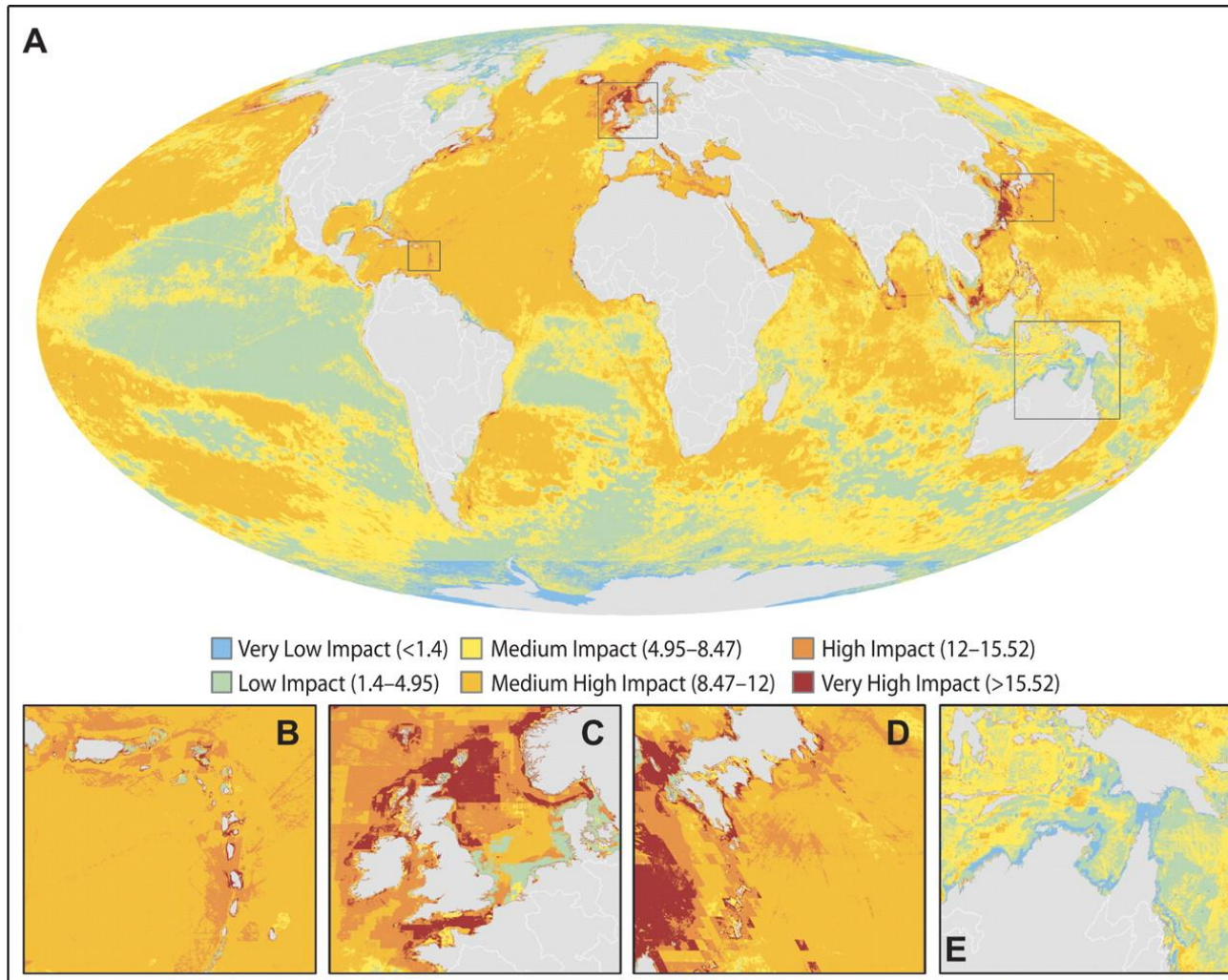


SOURCE: UN FAO FISHSTAT Database, <http://www.fao.org/fi/statist/FISOFT/FISHPLUS.asp>;
US Census Bureau, <http://www.census.gov/ipc/www/worldpop.html>

Quick Facts on Global Fisheries

- According to the U.N. Food and Agriculture Organization (FAO), **85%** of the world's fisheries are fully exploited, overexploited, depleted or recovering from depletion.
- Employment in capture fisheries, aquaculture, and related sectors supports about **540 million** people—approximately 8% of the global population.
- Seafood provides **15%** of animal protein for 4.3 billion people.
- Global fishing fleet: **> 4.3 million commercial vessels**
- **74%** operate in marine waters

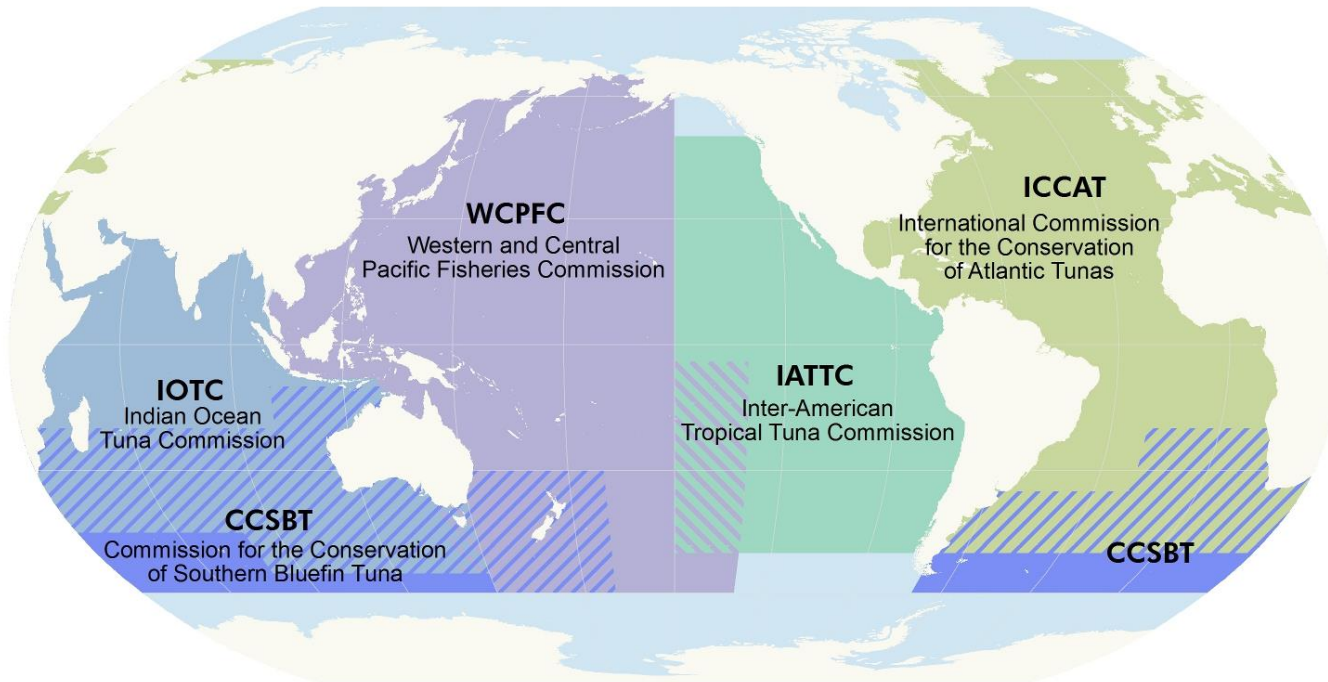
Global map (A) of cumulative human impact across 20 ocean ecosystem types



B S Halpern et al. Science 2008;319:948-952

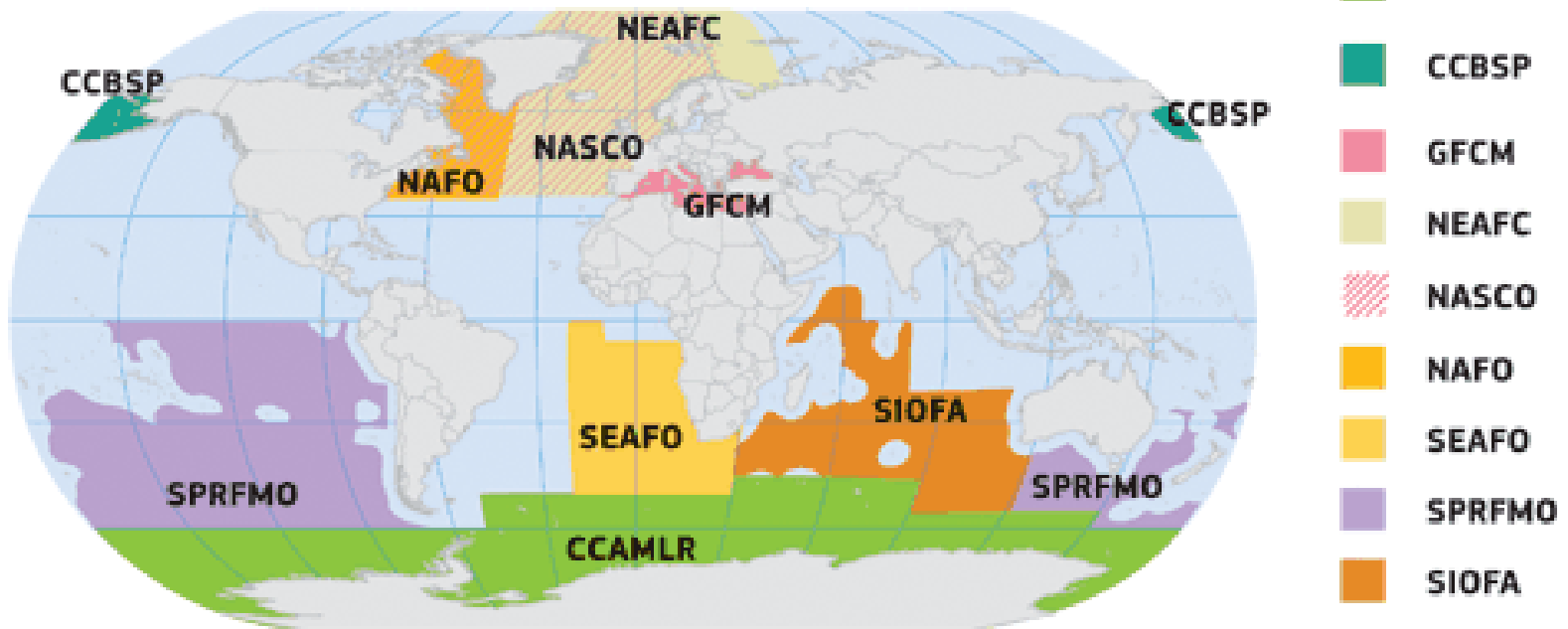
International Fisheries Management

The Tuna RFMOs



The Non-tuna RFMOs

RFMOs for non-tuna species



Collateral Damage

Marine Policy, March 1, 2013

“...the number of sharks killed each year in commercial fisheries is **estimated at 100 million, with a range between 63 million and 273 million.**”



International Fisheries Management: Turning Failure into Success

Failures:

- Lack of political resolution to make difficult adjustments
- Persistence of harmful subsidies
- Lack of control on fleets by flag states
- Ineffectiveness of RFMOs
- Lack of consideration of traditional communities rights
- Success of industry lobbies in resisting change
- Lack of capacity to implement management measures

Opportunities for Success

- Growing concern for global environment
- International instruments – broad agreement language on precautionary approach and ecosystem based management
- Strengthening of RFMO compliance processes
- Technology to improve data collection and combat IUU
- Increasing number of IUU cases being brought forward
- Markets demanding sustainable seafood

Illegal, Unreported, and Unregulated (IUU) Fishing

- **1 in 5** wild caught fish taken from the sea are taken illegally
- Annually, up to **\$23.5 billion** lost to illegal fishing
- IUU Hotspot: sub-Saharan Africa

IUU Fishing

Illegal Fishers Enjoy:

- Low risk – high gain activity
 - Resource challenged, fish-rich states
- Patchy surveillance and enforcement
- Lack of information sharing by authorities
- No common global database on offenders



The Challenge

- Provide resource-poor officials access to up-to-date vessel information with single mouse click or text message
- Make it harder to land IUU fish
 - IMO numbers and Port State Measures
- Shift paradigm: proceedings against IUU vessel owners

Case Study: China in the Western and Central Pacific Tuna Fishery

- Participates in WCPFC as a full member
- WCPFC most “modern” of the tuna RFMOs
- Primarily as a DWFN targeting tuna
 - Longlines (219)
 - Purse seines (12)
- Access to Pacific Island EEZs via confidential agreements

Longline Fishery – vessels flagged to China



YEAR	VESSELS ACTIVE	ALBACORE		BIGEYE		YELLOWFIN		BLUE MARLIN		BLACK MARLIN		STRIPED MARLIN		SWORDFISH		BLUE SHARK	SILKY SHARK	OCEANIC WHITETIP	MAKO SHARK	OTHER	TOTAL
		CATCH	%	CATCH	%	CATCH	%	CATCH	%	CATCH	%	CATCH	%	CATCH	%	CATCH	CATCH	CATCH	CATCH	CATCH	CATCH
1988	7	0	0	24	44	20	37	4	7	2	4	1	2	3	6	...	...	...	...	...	54
1989	9	0	0	99	56	45	26	14	8	5	3	3	2	10	6	...	...	...	...	...	176
1990	23	4	1	276	50	173	31	44	8	17	3	9	2	31	6	...	...	...	...	...	554
1991	39	0	0	526	43	481	39	98	8	38	3	19	2	69	6	...	...	...	...	...	1,231
1992	72	0	0	1,400	42	1,315	40	265	8	103	3	51	2	185	6	...	...	...	...	...	3,319
1993	311	1	0	3,664	47	2,754	35	626	8	243	3	121	2	437	6	...	...	...	...	...	7,846
1994	456	8	0	7,846	51	4,823	31	1,236	8	480	3	239	2	864	6	...	...	...	...	...	15,496
1995	422	5	0	4,744	37	5,837	45	1,032	8	400	3	199	2	721	6	...	...	...	...	...	12,938
1996	325	8	0	3,261	44	2,757	37	588	8	228	3	113	2	411	6	...	...	...	...	...	7,366
1997	144	2	0	2,243	50	1,419	32	357	8	139	3	69	2	250	6	...	...	...	...	...	4,479
1998	124	1	0	1,836	46	1,435	36	319	8	124	3	62	2	223	6	...	...	...	...	...	4,000
1999	115	3,473	38	1,805	20	2,237	25	663	7	257	3	128	1	463	5	...	...	...	...	...	9,026
2000	106	2,056	28	1,981	27	2,207	30	624	8	143	2	124	2	273	4	...	...	...	...	...	7,408
2001	116	2,711	33	2,227	27	1,919	24	685	8	157	2	136	2	300	4	...	...	...	...	...	8,135
2002	123	2,920	35	2,312	28	1,844	22	707	8	162	2	141	2	310	4	...	...	...	...	...	8,396
2003	179	6,223	28	8,965	40	3,358	15	1,854	8	425	2	369	2	1,168	5	...	...	...	...	3	22,365
2004	212	6,104	24	11,748	46	4,048	16	1,946	8	446	2	387	1	1,128	4	...	...	...	...	7	25,814
2005	212	4,103	25	7,520	46	2,446	15	1,161	7	256	2	252	2	637	4	...	...	...	...	5	16,380
2006	157	7,191	25	13,378	46	4,055	14	1,892	7	418	1	410	1	1,649	6	...	...	...	...	14	29,007
2007	86	5,453	24	10,535	46	2,768	12	1,340	6	296	1	290	1	2,113	9	...	...	...	...	1	22,796
2008	199	15,092	43	10,798	31	5,007	14	1,064	3	164	0	537	2	2,315	7	...	...	...	...	...	34,977
2009	219	20,149	42	15,289	32	7,958	17	1,212	3	52	0	300	1	2,275	5	...	...	...	...	751	47,986
2010	219	13,025	38	13,924	40	2,576	7	1,334	4	44	0	197	1	1,526	4	506	...	532	133	896	34,693
2011	219	11,996	36	11,139	33	4,598	14	1,226	4	172	1	370	1	1,971	6	726	...	...	408	757	33,363

China's Purse Seine Fishery in WCPFC

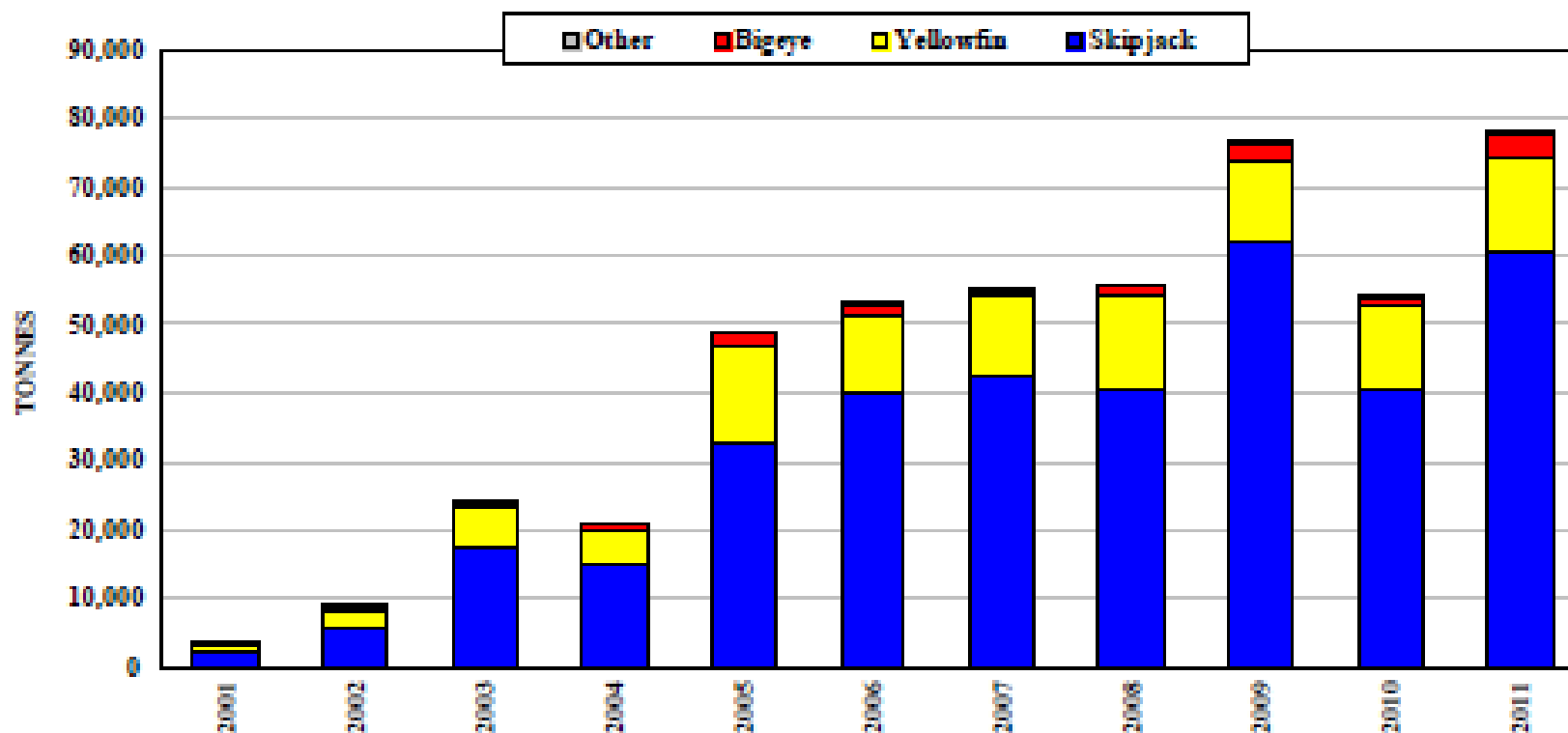
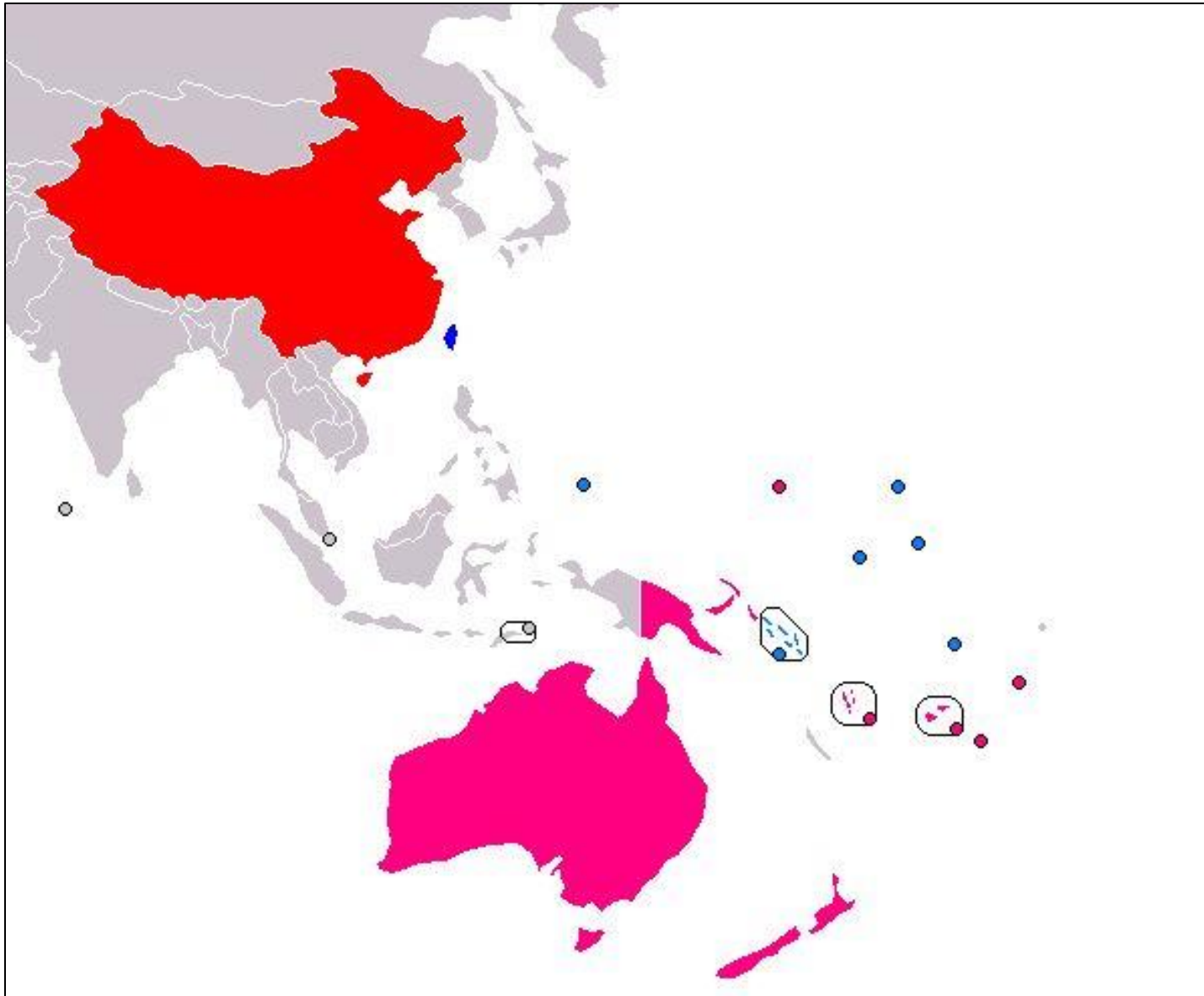


Figure 40. Catches by Chinese purse seiners

WCPFC Challenges

- Poor Data quality – no verification system
 - Longline data often not available for 2 years
- Chartering arrangements in most Pacific Island Countries – Chinese activities flagged offshore
- Uneven playing field – heavily subsidized fleet
- Non-transparent Access Agreements
 - Often linked to aid (“checkbook diplomacy”)
- Image Problem complicating relationships

Pacific Diplomatic Relations





China's Image Problem in the Pacific

China's Fishing Subsidies Are Offsetting Rising Tuna Fishing Costs But Also Driving Other Fishermen Out Of Business

By *Sophie Song*
on August 15 2013 3:47 PM



Illegal Chinese fishing in S. Korean waters total 4,600 cases over past decade

theguardian

News | US | World | Sports | Comment | Culture | Business | Money

Environment > Fishing

Chinese fishing fleet in African waters reports 9% of catch to UN

Researchers say a new way to estimate the size and value of catches shows the extent of looting of Africa

Thank You

