ASIA PACIFIC - FISHWATCH

CONCEPT AND THE WOLF HERRINGS
(CHIROCENTRUS SPP) AS EXAMPLE

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Asian Fisheries Society
Consumer information on fish is a well kept secret in Asia-Pacific

- Asian Fisheries Society is starting AsiaPacific-FishWatch, an online project to
  - ... explain about Asia-Pacific fish products eaten locally and in major world markets
  - ... provide authoritative, accessible information for consumers, the general public, fish exporters and importers, fisheries managers, aquaculturists, fishers and scientists

Photo: New Straits Times 6 July 2008
Fish Facts for All

- People could use information that is
  - accessible and authoritative
  - addresses their concerns on
    - price
    - safety
    - nutrition
    - sustainability
    - food security, fair trade

Fish buyer making a decision, Pasar Berserhati, Manado
Photo: M. Williams
A Focus on people

- From the water to the mouth
  - and steps in between
  - including women’s roles
- Different supply chains for different markets
  - fresh and processed local
  - distant urban
  - fresh and processed export
  - re-processed

Yellowfin tuna, Pasar Berserhati, Manado
Photo: P. Kailola
Scope and scale

- Asia and western Pacific regions
- Initial priority on edible species
  - aquaculture and fisheries
- About 100 species/groups in 1st phase (1/3 of world fish)
- Criteria include
  - >100,000 t production
  - high value
  - at least top 3 producing countries
Wolf herrings as an example

- Clupeoid
- 2 species
  - *Chirocentrus dorab*
  - *Chirocentrus nudus*

*(Photos: J. Randall)*
The basic species structure

AsiaPacific-FishWatch
FISH FACTS FOR ALL

Wolf herrings (Chirocentrus spp)

Wolf herrings – (Chirocentrus spp) <Pilot species – Work in Progress>

Photos: J. Randall (left: C. dorab; right: C. nudus)
Sourcing information

- All information will be properly acknowledged
- FAO various, including FishSTAT
- FishBase, FishBOL,
- Scientific literature, books and other sources from Internet
- Personal expert contacts
- Observations in the field, market

Fish seller, Goa, India Feb. 2010
Finding out what users want

- Short user questionnaire
  - 76 responses at 5 workshops (2009-11)
  - Soon to go online
  - What is the common name?
  - Have you eaten it and how?
  - Do you like eating it?
  - What would you like to know about it?

**Wolf Herrings** *Chirocentrus dorab* and *C. nudus*

<table>
<thead>
<tr>
<th>Common names</th>
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<tbody>
<tr>
<td><em>Chirocentrus dorab</em>: dorab wolf herring (FAO, Australia), blackfin wolf-herring, parang-parang (Indonesia, Malaysia, Philippines), ikan parang (Malaysia), golok-golok Indonesia, <em>C. Dorab</em> and <em>C. Parang</em> (Vietnam), ??? Thailand</td>
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<tr>
<td><em>Chirocentrus nudus</em>: whitefin wolf herring (FAO, Australia), parang, parang-parang (Indonesia, Malaysia, Philippines).</td>
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**DESCRIPTION**

Wolf herrings are long, highly laterally compressed fishes in the same group as herrings, sardines, pilchards, sprats, anchovies and sardines. Wolf herrings are common coastal fish from the western Pacific (Solomon Islands) to east Africa.

- Do you know this fish? Yes/No
- If Yes, what common name do you use for it in your country? Name: Country:
- Have you ever eaten it? Yes/No
- If Yes, in what form did you eat it (e.g., in soup, filet, fish ball, dried, etc)?
- Where did you eat it and buy it (e.g., home, restaurant, buy from market, etc)?
- Do you like eating this fish and why?
- As a consumer, what information would you like to have about this fish (e.g., its nutritional value, where it was caught, how, is it safe etc etc)?

When completed, please return to Meryl Williams.
Info gaps and blind spots (1)

- Few countries report catch to FAO (9 only in 2008, 13 ever)
  - E.g., Vietnam does not report as species
- Total identified catch
  - 74,413 t (2008)
- Species confusion?
  - *C. dorab* (4 countries)
  - *C. nudus* (2 countries)
  - *C. nei* (unident.) (7 countries)
**Info gaps and blind spots (2)**

- Distribution not fully clear
  - FAO, OBIS etc
    - Based largely on museum records
    - Missing east coast Australia, Fiji etc
  - FishBase
    - Some unreviewed estimates based on modeling suitable habitat ranges (Aquamaps)
    - Missing Fiji, offshore range likely too large

Above: FAO Species Synopsis, FIGIS (insert)
Below: FishBase Aquamaps (unreviewed)
Species distinctions (1)

- Very difficult to distinguish species visually
- Most authoritative work done by Dr G Luther, CMFRI India
- Studied *Chirocentrus* spp in Gulf of Mannar, 1964-69
- Ph D and published papers in Indian journals (1980s)
  - *J. mar. biol. Ass. India*, etc
- Similar but different biologies
- 80% of catch was *C. nudus*
Species distinctions (2)

- Most articles simply refer to *C. dorab* or the ‘dorab wolf-herring’
- But
  - 100% *C. nudus* at Penang local markets (2 years observations)
  - E. coast Australia baitfish may be mainly *C. nudus*
- So what is the real species composition?

*Chirocentrus nudus*  
Batu Lanchang fish market, Penang
Common and market names

- FAO: wolf-herring
- FishBase lists many common names
- AsiaPacific-FishWatch will distinguish the official market names in each country, e.g., ikan parang (Malaysia)
A plethora of consumer options
A plethora of consumer options

- Also fresh, fried, dried, in soup, sashimi
- Differing views on taste (on balance highly positive)
- Bony – but concept needs refining!
- High levels of poly-unsaturated fatty acids
- Also well-regarded recreational fish by anglers; and top baitfish for gamefish (Australia)
Production, trade, top 3 countries

- Caught in coastal drifting gill nets
- As officially reported
  - Indonesia
  - India
  - Thailand
  - Also Malaysia, Iran, Pakistan, Philippines, Saudi Arabia, Singapore
- Little international trade
  - Some product requests from China
Sustainability, environment

- Multi-species fisheries
- No stock assessments
  - But large specimens rare
- High trophic level feeder

Single large wolf-herring
Batu Lanchang markets, Penang Feb 2010
Welcome to the new AsiaPacific-FishWatch site!

The Asian Fisheries Society is developing an online information system for Asia-Pacific fisheries and aquaculture products. This authoritative information system will engage the knowledge and expertise of hundreds of regional fisheries and aquaculture experts and all key institutions.

We are taking a whole of supply chain approach, covering information on sustainability, identification and biology, environment, production, trade, details from the top 3 producing countries for each commodity/species group and giving up to date references and further links.

The previous site for AsiaPacific-FishWatch is also still active and contains information on planning meetings and pilot species (http://sites.google.com/site/fishwatchasiapacific/Home).

— Leave a comment
Building on Know How

- Using and sharing experiences
  - from NOAA’s FishWatch, NACA, SEAFDEC, INFOFISH, China fisheries information system, Australian fisheries atlas

- Linking with relevant fish information systems
  - e.g., NOAA FishWatch, FAO, FishBase, FishSource