Dear Daniel,

Thank you sincerely for submitting assessments to the Myers II database. We have entered 1 of your assessments, and now wish to quality assure/quality control (QA/QC) these data for a release version of the database. Please follow the steps below to ensure that your assessments have been dutifully represented:

## QA/QC steps

For each assessment:

- 1. Ensure that the General assessment details are correct.
- 2. Ensure that the units for all Biometrics and Time Series shown are correct. To aid in this, we have included the minimum, maximum, first year, and last year of the spawning stock biomass, recruitment, fishing mortality, total biomass, and catch (where provided).
- 3. If there are blank values in the Biometrics table, please include these in your response (see below), where they are available. Please note that in the Biometrics table, the following abbreviations are used:
  - SSB-AGE-yr = Ages for which the spawning stock biomass is defined
  - REC-AGE = Age at recruitment
  - F-AGE-yr = Ages for which the fishing mortality is defined
  - TB-AGE-yr = Ages for which the total biomass is defined
  - M = Natural mortality
  - A50-yr = The age at 50% maturity
  - L50-cm = The length at 50% maturity
  - MORATOR-yr-yr = Moratorium years
  - LME = Large Marine Ecosystem
- 4. To ensure that the recruitment time series has been offset by the age at recruitment so that yearclass matches up with spawner biomass, please make sure that the difference between the last year of the recruitment and last year of the SSB time series is equal to the age at recruitment supplied (unless there is another reason, e.g. estimates unavailable).
- 5. Provide Large Marine Ecosystem (LME) designation(s) for your stock (unless it is a high seas stock). Please enter a primary, secondary and tertiary LME (if they exist) in the issue you submit (see below). A map of the LMEs is provided on the last page of this document.

## QA/QC submission process

If you (or someone else) submitted the assessments via the RAM legacy site, please log into: http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting and locate the issue(s) associated with your spreadsheet submission(s). Once you locate your assessment, open the associated issue and choose "Add response". At the top of this response write:

*QAQC: Assessment ID* (this ID is located at the top of each assessment in the current document)

If you did not submit via the RAM Legacy site, please go to the url above and click "Submit a new issue" with the title: *QAQC: Assessment ID* (located at the top of each assessment in this pdf).

If you found no issues with the QA/QC document, please type:

"QA/QC correct". If you have found issues, please update the assessment spreadsheet accordingly or write the details of corrections to be made in the dialogue box. Once we have received and processed your response, the assessment will be flagged as quality controlled and the data it contains will be used for analyses.

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## Assessment of North-Central Peruvian coast peruvian anchoveta (*Engraulis ringens*) Assessment ID:IMARPE-PANCHPERUNC-1963-2004-RICARD

Assessment ID:IMARPE-PANCHPERUNC-1963-2004-RICARD Issue URL: http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/458

Area ID: Peru-IMARPE-NC

General assessment details.

Detail	Value
Management body	IMARPE
Assessment group	Instituto del Mar del Peru
Assessment authors	Cahuin, Sandra M.
Assessment method	Virtual Population Analysis
Publication year	2009
Timeseries span	1963-2004
Document	Cahuin_etal_2009.pdf (pdf in database)
Recorder	RICARD
Date entered	2010-07-21
Date last loaded	2010-07-21
QA/QC complete	YES
Date approved	2010-07-21

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME	C		seco	ondary LME	tertiary LME		
13 - Humboldt Current na			na		na		
Parameter	Value	Uni	its				
REC-AGE-yr SSB-AGE-yr	0	yr					
SSB-SEX-sex				Reference points			
TB-AGE-yr F-AGE-yr M				Parameter	Value	Units	
A50-yr L50-cm							

Time	series minim	a and maxima			
	SSB	R	F	TB	Catch
Minimum year	1963	1963			
Maximum year	2004	2004			
Time series minimum	561000	10000000			
Time series maximum	15792000	1681000000			
Units	MT	E03			

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