

SERIOLA/COBIA AQUACULTURE DIALOGUE

VERACRUZ, MEXICO

SEPTEMBER 24-25, 2009

Meeting Summary

Prepared by

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## **Meeting Background**

The Seriola/Cobia Aquaculture Dialogue (SCAD) met for the second time September 24-25, 2009 in Veracruz, Mexico to discuss the development of standards for responsible Seriola/Cobia farming. Paul Holthus, a consultant who is coordinating the SCAD on behalf of World Wildlife Fund (WWF), organized and facilitated the meeting. The agenda and participants list for the meeting are included in appendix 1 and 2. The first SCAD meeting was held in Seattle, Washington on 19-20 February, 2009.

The expected outcomes of the second SCAD meeting included:

1. Create a shared understanding of the SCAD process and how meeting attendees can participate in the process.
2. Update participants on the outcomes of the first SCAD meeting and the progress since then.
3. Review the draft list of key impacts related to Seriola/Cobia aquaculture.
4. Develop draft SCAD principles.
5. Develop draft SCAD criteria (time permitting).
6. Review the status of the SCAD Steering Committee and funding, and develop plans to expand the committee and address funding needs.

This document offers a summary of key issues related to the meeting and next steps for the SCAD.

## **Pre-Meeting Outreach and Attendance**

A press release about the meeting was sent to trade publications several months prior to the meeting. In May 2009, a save-the-date message was sent to key stakeholders, including Seriola/Cobia producers, producer associations, and research institutes, NGOs, processing companies and services industries. The final invitation was sent to a broad group of stakeholders in August 2009. Twenty-eight people participated in the meeting. This included aquaculture producers, seafood distributors, aquaculture food producers, other affiliated industries, academics and a number of international NGOs. The four entities making up the current SCAD Steering Committee (WWF, Ocean Conservancy, Kona Blue, and Open Blue Sea Farms) were all represented at the meeting.

## **Purpose and Process of the Aquaculture Dialogues and the SCAD**

A presentation was made by Paul Holthus to provide an overview of the purpose of and process for the Aquaculture Dialogues and, more specifically, outline the SCAD process in relation to the overall Dialogue framework. Several attendees were familiar with the Dialogues, as some have attended other Dialogue meetings, and several of those attending the Veracruz SCAD meeting had also participated in the first SCAD meeting.

*Key points made during the presentation were:*

- The purpose of the SCAD is to create standards that will minimize the key impacts of Seriola/Cobia aquaculture and move producers towards better performance.

- The standards can be used to certify products and benchmark other standards. They also can create the foundation for buyer and investment evaluation and have the potential to be incorporated into government programs.
- Standards are geared toward the best performers in the industry.
- The SCAD process is designed to be open and transparent, as well as to result in standards that are performance-based, science-based and measurable.
- Stakeholders can participate in the SCAD by attending Dialogue meetings, joining a SCAD scientific or non-scientific advisory group (if these are established), providing input via review and comment on the draft criteria, indicators and standards, and serving on the Steering Committee (SC) that manages the SCAD.

During the plenary discussion that followed the presentation, there was general understanding among the participants on the purpose and process of the Aquaculture Dialogues and the SCAD. Issues raised during the discussion were:

- **The Aquaculture Stewardship Council (ASC):** The ASC is a new entity that will be responsible for hiring auditors to certify farms that adopt the Dialogue standards. Jose Villalon of WWF, which is co-founding the ASC, briefed the participants on the development of the ASC and the plans to have it operational in two years. He outlined the relationship of the Aquaculture Dialogues to the ASC and explained the role Dialogue participants can play in the development of the ASC and in helping the ASC review/revise the Dialogue standards in the future.
- **Feed:** Some participants noted that the issue of aquaculture feed sustainability has been raised in several of the Aquaculture Dialogues. There was general support for the need to reduce the use of wild capture fisheries as food sources for aquaculture production and to ensure that vegetable protein sources are sustainable. However, concerns were also expressed about singling out specific vegetable protein sources and stipulating that their future use would require compliance with standards that don't yet exist.
- **ISEAL:** There were numerous questions about the International Social and Environmental Accreditation and Labelling Alliance (ISEAL), particularly compliance with the ISEAL Code of Good Practice for Standard Setting. Paul Holthus (a former ISEAL Board member) outlined the membership and purpose of ISEAL and described the role of the standards-setting code as part of the Aquaculture Dialogues and SCAD, as well as in relation to other efforts to develop sustainable food and agriculture production systems.
- **Scope:** Questions about the geographic scope of the SCAD were raised. Members of the SCAD Steering Committee reiterated that the process is open to stakeholders anywhere, but has been established with a focus on the production of *Seriola* and *Cobia* in the Americas, as there are limited resources available at this point and that the interest in standards has emanated from

producers in the Western Hemisphere. Several participants raised the issue of expanding the scope of the SCAD to a wider scale, as this would help ensure that the dialogue addresses the full range of *Seriola/Cobia* farming. The SCAD Coordinator will continue to inform stakeholders from a broad geographic range about the SCAD and encourage them to review the outputs and participate in future SCAD events, so that a wider range of stakeholders will have the information and opportunity to engage in the process.

- **Data:** Participants noted the lack of data that had been compiled on the aquaculture production of *Seriola/Cobia* and encouraged producers to make information available so that a better understanding of the status and trends in *Seriola/Cobia* production could be developed. During the course of the meeting in Veracruz, available estimates of *Seriola* production were assembled into an initial table (Appendix 3). Efforts are needed to expand the level and quality of this information and undertake a similar effort to assemble data for *Cobia* production. There was agreement that the SCAD participants and stakeholders should work to obtain and compile information on *Seriola/Cobia* production.

### **Presentations**

Presentations were made by aquaculture companies to describe industry experience in developing responsible offshore and recirculating production systems, outline the sustainability issues and inform the meeting participants about the state of the art in implementing good practices in *Seriola* and *cobia* production. A third presentation outlined the experience from other Aquaculture Dialogues with a view to helping ensure the SCAD incorporates elements, experiences, and lessons-learned from those Dialogues.

*Neil Sims of Kona Blue made a presentation entitled “Industry Experience in Good Practice: Responsible Open Ocean Mariculture.” Key points and areas of discussion included:*

- There are responsible companies working to develop and expand sustainable offshore aquaculture in order to increase the supply of healthy and nutritious marine finfish.
- The open ocean provides an opportunity to raise fish in areas with minimal potential for conflicts with other users, minimal environmental impacts and good water quality.
- Good practice includes engaging early and thoroughly with stakeholders, especially in the community, and engaging in the permitting process.
- Site selection is critical and must be undertaken transparently, in consultation with stakeholders, to consider other uses, water quality concerns, possible benthic impacts, etc.
- A rigorous monitoring of fish health, water quality, adjacent coral reef fish and benthic communities and marine mammal interactions is essential, with data preferably being verified by third parties and made available to stakeholders.

- Companies should strive for continuous improvement in feed conversion ratios, reducing the amount of input to diets from wild capture fisheries, and minimizing the use of therapeutants.
- Like-minded companies can usefully work together towards the best use and management of the open oceans and meeting the demand for healthy seafood by balancing the expansion of environmentally sound open ocean aquaculture with the protection of open ocean resources and habitats.

*Bill Harris of Virginia Cobia Farms provided an overview of good practice in cobia aquaculture in onshore recirculating systems. Key points and areas of discussion included:*

- Closed circuit systems are able to closely manage water and energy use and effluent discharge.
- Land-based, recirculating systems do not engender many of the environmental issues associated with fish production in the marine environment, such as water pollution, impacts to the benthic community, escapes, interactions with marine mammals and other endangered species.
- The technology development for recirculating systems has advanced significantly in recent years to enable these systems to increase the volume of production and meet market demand.

*Corey Peet from the David Suzuki Foundation made a presentation (via conference call) entitled "Learning from the WWF Aquaculture Dialogues: Ensuring the SCAD is Consistent with the Goals and Objectives of Other WWF Dialogues by Incorporating Common Elements, Experiences, and Lessons-Learned from Those Other Dialogues." Key points and areas of discussion included:*

- The Aquaculture Dialogues are working to define the ideal in sustainability, then working back to find the economic feasibility point and develop a path of continuous improvement.
- The Dialogues will only be as strong and credible as the weakest of the Dialogues from among all the Dialogues.
- There are many cross-cutting issues that are common to many or all of the Dialogues (e.g. feed sustainability, use of exotic species and energy use) and it is critical that the Dialogues try to have common positions for these issues.
- Technical Working Groups are a key mechanism for ensuring the credibility of the Dialogue content and process, with different models for the members and activities of the group, involving tradeoffs between money, time, and credibility.
- Proactive outreach to key stakeholders by the Dialogue is an important strategy to build credibility and to increase the robustness of the standards.
- Continuous improvement is a key principle for developing the standards and it is critical to not let the perfect be the enemy of the "good enough," but it also is important to ensure that uncertainty is addressed and documented.

- The preamble to the standards is important for explaining the process; a history section is important to transparently document the development of the standards; and a roadmap is important to show how there can be improvement over time in the standards and their use.
- Key elements to success include: working consistently and not allowing long gaps in the process; developing a good steering committee; engaging with other Dialogues on common issues; achieving a good balance between presentations and workshop time at the meetings; and keeping realistic expectations.

### **Review of SCAD Goals and Objectives**

The following SCAD goals and objectives were developed at the first SCAD meeting and finalized at the second meeting.

#### Goals

Develop verifiable, science-based environmental and social performance standards that:

1. Are acceptable to SCAD stakeholders.
2. Measurably reduce key negative impacts of Seriola and cobia farming.
3. Encourage and promote progress towards environmentally, socially and economically sustainable Seriola and Cobia farming.

#### Objectives

1. Identify and share information on Seriola/Cobia production.
2. Ensure open and transparent dissemination of science-based information to stakeholders.
3. Agree on key areas of impacts of Seriola/Cobia farming.
4. Agree on a set of principles and criteria for Seriola/Cobia aquaculture.
5. Agree on indicators and performance-based, measurable and verifiable standards for environmentally, socially, and economically sustainable Seriola/Cobia farming that are based on research and standard-setting process.
6. Seek funding for un-funded and emerging research priorities.
7. All participants commit to support and encourage adoption of performance levels.
8. Continuously update the body of knowledge on Seriola/cobia aquaculture to ensure science-based standards development.

### **Review of Impacts Associated with Seriola and Cobia Aquaculture**

The following impacts related to Seriola and cobia aquaculture were identified at the first SCAD meeting and finalized at this meeting:

- Fish health
- Chemical use
- Antibiotic use
- Escapes

- Feed
- Water quality
- Waste
- Resource use and efficiency
- Benthic impacts
- General wildlife impacts
- Seed and brood stock issues
- User conflicts
- Social issues

### **Principles and Criteria for Sustainable Seriola/Cobia Aquaculture**

The participants were divided into three breakout groups, with each group reviewing up to four of the impact categories and developing draft principles for each impact. The draft principles developed by each group were then presented for consideration by the group as a whole. Specific issues and considerations related to each of the draft set of principles were raised and discussed by the meeting participants.

The meeting participants were then briefed by the SCAD coordinator on the principles and criteria that have been created by the Salmon Aquaculture Dialogue (SAD), which has been underway for several years. The meeting participants agreed that the development of the draft SCAD principles could be moved forward more efficiently by reviewing the SAD principles and revising them as needed to address aspects of Seriola/Cobia aquaculture that differ from salmon aquaculture.

While undertaking this process, the SCAD participants noted that many of their comments from the discussion on principles could be captured in developing the criteria and that the SAD criteria provide a useful basis from which to consider criteria for Seriola/Cobia aquaculture.

As a result, the participants agreed that to review the SAD principles and criteria at the same time and adjust them to reflect the impacts, issues and needs of Seriola/Cobia aquaculture.

The meeting participants agreed that the SCAD coordinator should incorporate the input of the meeting into an organized set of draft SCAD principles and criteria for review by the SCAD's SC. That document is in Appendix 4.

### **SCAD Steering Committee**

The SCAD coordinator outlined the purpose and role of the SCAD SC:

- Make final decisions about standards.
- Consider input from all Dialogue participants, technical working groups and advisory groups.
- Manage a consensus-oriented decision making process that follows ISEAL standards and is approved by the SC.

The expected role of each SC member is to:

- Attend all Dialogue meetings.
- Participate in committee conference calls.
- Respond to committee-related email messages in a timely fashion.

At the first SCAD meeting, participants agreed that the SC should include 3-4 NGO representatives and 3-4 Seriola or Cobia producers. The following stakeholders volunteered to participate in the SC and were chosen at that meeting were Kona Blue (Neil Sims), Open Blue Sea Farms (Brian O'Hanlon ), WWF-US (Jose Villalon), and the Ocean Conservancy (George Leonard), which would come on board after the first meeting. At the second meeting, participants agreed that it would be valuable to have a larger SC and they encouraged the SCAD SC members and coordinator to identify additional SC members.

### **SCAD Funding**

The SCAD coordinator and the SC members from WWF (Jose Villalon) and Kona Blue (Neil Sims) outlined the SCAD funding situation, noting that there currently are not funds available to carry forward with the SCAD process. Appreciation to the soy industry for the support that has been provided for the SCAD work to date was expressed.

WWF described the funding situation for other Aquaculture Dialogues, noting there was an initial level of grant funding available to get these Dialogues started but that these funds had all been allocated before the SCAD was started. In other Aquaculture Dialogues, the SC members have contributed funding to enable the scientific or technical committees to undertake the work program with which they have been tasked.

The meeting participants agreed that the SCAD SC should seek to identify and obtain funds to enable the SCAD process to continue.

### **Next SCAD Meeting**

Aquaculture 2010, to be held in San Diego in March 2010 was discussed as a good opportunity to hold the third SCAD meeting, so as to be able to take advantage of an existing event that would already be attracting a substantial number of aquaculture stakeholders.

### **Action Items:**

1. Contact potential new members of the S C (SC committee and SCAD coordinator).
2. Identify potential funding sources for the SCAD. (SC committee and SCAD coordinator).
3. Finalize and clean up the draft of principles and criteria (SC committee and SCAD coordinator).
4. Identify and compile information on Seriola/Cobia production (SCAD stakeholders) that can be circulated to stakeholders at, or in advance of, the next SCAD meeting.



5. Circulate the draft of impacts, principles and criteria to the SCAD mailing list, with a defined time line (to be determined) for review and comment (SC committee and SCAD coordinator).
6. Plan the next SCAD meeting, ideally to be held in conjunction with Aquaculture 2010 in March 2010 (SC committee and SCAD coordinator).
7. Post meeting materials on SCAD website (Jill Schwartz, WWF-US).

## **Appendix 1: AGENDA**

### **Day 1: 24 September**

8:30 – 9:00	<b>Registration</b>
9:00 – 9:30	<b>Welcome and introductions</b> - Paul Holthus, SCAD Coordinator
9:30 – 10:30	<b>Understanding the Aquaculture Dialogues and SCAD</b> - Paul Holthus, SCAD Coordinator
10:30 – 10:45	<b>~ Break ~</b>
10:45 – 11:30	<b>SCAD progress to date, goals and objectives; Review of SCAD Impacts identified at SCAD 1</b> - Paul Holthus
11:45 – 12:15	<b>Industry experience in good practice: Offshore systems</b> - Neil Sims, Kona Blue
12:15 – 13:30	<b>~ Lunch ~</b> (on own)
13:30 – 15:15	<b>Developing SCAD Principles</b> - Breakout Groups
15:15 – 15:30	<b>~ Break ~</b>
15:30 – 16:00	<b>Developing SCAD Principles</b> - Plenary Discussion
16:00– 17:00	<b>Learning from the WWF Aquaculture Dialogues: Ensuring SCAD is consistent with the goals and objectives of other WWF Dialogues by incorporating common elements, experiences, and lessons-learned from those other dialogues</b> - Corey Peet, David Suzuki Foundation
17:00	<b>Adjourn</b>
Evening event	<b>Informal social gathering</b>

### **Day 2: 25 September**

8:30 – 9:00	<b>Industry experience in good practice: Recirculating systems</b> - Dr Harris, Virginia Cobia Farms
9:00 – 10:00	<b>Review from Day 1 Breakout Groups</b> - Group Raporteurs
10:00 – 10:15	<b>~ Break ~</b>
10:15 – 12:30	<b>Introduction to Principles, Criteria and Indicators</b> - Paul Holthus
12:30 – 13:30	<b>~ Lunch ~</b> (on own)
13:30 – 15:30	<b>Principles</b> - Plenary Discussion

15:30 – 15:45

**~ Break ~**

15:45 – 16:30

**Steering Committee structure and membership** - Plenary discussion

16:30 – 17:00

**Next steps** - Plenary discussion

17:00

**Adjourn and close dialogue session**

**Appendix 2: LIST OF PARTICIPANTS**

Name	Organization	Country
William Brandt	U.S. Soybean Export Council	USA
John Campen	United Soybean Board	USA
Steve Craig	Virginia Cobia Farms	USA
Bob Dwyer	International Copper Association	USA
Daniel Elton	Acuinor	Chile
Ben Fazioli	Open Blue Sea Farms	USA
Karen Fear	United Soybean Board	USA
James Ferro	Ocean Conservancy	USA
Langley Gace	OceanSpar LLC	USA
Ross Gordon	Oceanic Enterprises	Australia
Bill Harris	Virginia Cobia Farms	USA
Cheng-Sheng Lee	Center for Tropical and Sub-Tropical Aquaculture	USA
Jennica Lowell	Kona Blue Water Farms	USA
Graham Mair	Australian Seafood Cooperative Research Centre	Australia
Gidon Minkoff	Fin-Aqua Consulting	Canada
Corey Peet (conducted presentation and follow up discussion by conference call)	David Suzuki Foundation	Canada
Chuck Prellwitz	United Soybean Board	USA
Marty Ross	United Soybean Board	USA

Federico José Rotman	Kona Blue Water Farms	USA
Neil Sims	Kona Blue Water Farms	USA
Andrew Storey	Open Ocean Systems	Canada
Francisco de la Torre	U.S. Soybean Export Council	USA
Catalina Valencia	U.S. Soybean Export Council	USA
Jose Villalon	WWF	USA
Niall Vine	Marine Finfish Association of South Africa	South Africa
Javier Visuetti	Open Blue Sea Farms	Panama
Lars Windmar	Det Norske Veritas	Norway

**Appendix 3: SERIOLA PRODUCTION ESTIMATES**

Global Aquaculture Production of Seriola (in Metric Tons)					
	Quinquerradiata	Rivolana	Dumerili	Lalandi	Totals
Japan	121,000		72,000	7,000	200,000
Australia				3,500	3,500
Hawaii		500			500
S. Africa				New*	-
Saudi Arabia		New*			-
Chile				New*	-
Mexico		New*			-
Totals	121,000	500	72,000	10,500	204,000

\*New = new projects in progress

## **Appendix 4: DRAFT PRINCIPLES AND CRITERIA FOR SERIOLA/COBIA AQUACULTURE**

**Principle 1: Comply with all applicable international, national and local laws and regulations.**

### **Criteria**

1.1 Compliance with all applicable local, national and international legal requirements and regulations

**Principle 2: Conserve natural habitat, local biodiversity and ecosystem structure and function**

### **Criteria**

2.1 Benthic biodiversity and benthic effects

2.2 Water quality in and near site of operation

2.3 Interaction with critical or sensitive habitats and wildlife, including predators

2.4 Cumulative impacts

**Principle 3: Protect the health and functional genetic integrity of wild populations**

SCAD 2 Notes:

- Need to define genetic integrity
- Need to consider what level of change in wild populations

### **Criteria**

3.1 Introduced parasites and pathogens

3.2 Amplified parasites and pathogens

3.3 Introduction of nonnative species

3.4 Introduction of transgenic species

3.5 Escapes

**Principle 4: Use resources in an environmentally efficient and responsible manner**

### **Criteria**

- 4.1 Use of wild fish for feed (dependency on marine protein and lipid sources)
- 4.2 Source of marine raw materials (i.e. origin of fish used in feeds)
- 4.3 Source of non-marine raw materials in feed
- 4.4 Non-biological waste from production
- 4.5 Energy consumption and greenhouse gas emissions (on farm)
- 4.6 Non-therapeutic chemical inputs

**Principle 5: Manage fish health in an environmentally responsible manner**

Criteria

- 5.1 Survival and health of farmed fish
- 5.2 Contamination levels and health effects in local non-target organisms
- 5.3 Therapeutic treatments
- 5.4 Resistance of parasites, viruses, and bacteria to medicinal treatments
- 5.5 Biosecurity management

**Principle 6: Develop and operate farms in a socially responsible manner**

SCAD 2 Notes:

- This Principle and set of Criteria were not yet discussed in detail
- Need to review and consider the criteria below which are derived from the standards of Social Accountability International (SAI) being considered in other Aquaculture Dialogues

Criteria

- 6.1 Freedom of Association and Collective bargaining
- 6.2 Child Labor
- 6.3 Forced, Bonded, or Compulsory Labor
- 6.4 Discrimination
- 6.5 Health and Safety of workers



6.6 Wages

6.7 Contracts (Labor) including subcontracting

6.8 Conflict resolution

**Principle 7: Operations are an integral, evolving and beneficial part of the broader social fabric of the community**

Criteria

7.1 Interaction with local communities and other resource users

7.2 Respect for indigenous and aboriginal cultures and traditional territories

**Principle 8: Operations incorporate good science, credible monitoring and its use in adaptive management/continuous improvement**

SCAD 2 Notes:

- This Principle and set of Criteria were not yet discussed in detail
- The criteria need to include research, development, siting, et/

Criteria

[To be developed]