ABC Industry Advisory Committee Third Meeting – March 11, 2013 VIMS

Minutes

In attendance: Stan Allen, Mike Congrove, Andy Drewer, AJ Erskine, Tom Gallivan, Kim Huskey, Anu Frank-Lawale, Roger Mann, Tim Rapine, Jessica Moss Small, John Vigliotta, John Wells

Absent: Mike Oesterling, Ryan Carnegie

The meeting began with Stan presenting an agenda. The minutes generally follow the order of subjects as presented in that agenda.

AJ Erskine brought up whether the committee would want Mark Luckenbach, now ADRAS, to attend the meetings instead of or in addition to Roger Mann. Roger is still happy to attend and it was decided to confer with other industry members as to if they wanted Mark Luckenbach to become a permanent member of the IAC. John Wells also reiterated that he is happy to continue his attendance at the meetings.

Stan opened this meeting with a brief introduction, specifically, a “view from the director’s point of view.” He discussed that ABC came to be in order to “do something about the oyster problem” and how ABC grew under essentially its own direction. But now, industry has reached a point where they share the fate of what goes on at ABC. Stan said that ABC recognizes that partnering with industry through the IAC is entirely appropriate in its evolution. AJ Erskine pointed out that the industry also consists of the hard clam industry and that ABC at one time was involved in this activity. He also pointed out that past research on C. ariakensis also contributed to the development of native oyster aquaculture that started to take off in 2003/2005.

Stan then went on to discuss his professional concerns, in, as he pointed out, alphabetical order, the point being that there are several aspects to his job besides his responsibility to the industry. Those concerns are listed below:

1. ABC’s operation, sustainability, and legacy, i.e., the administration of ABC as an entity within VIMS
2. Stan is a faculty member of VIMS & William and Mary with expectations of collaboration with other scientists and institutions
3. Improved brood stock to the industry, which includes ABC service to the industry now and in the future
4. Legacy of tetraploids worldwide, which is consonant with his faculty expectations but also a personal devotion

In Stan’s eyes, in the future, ABC strives to become a “lean and mean” breeding program with flexibility to deal with industry issues as they arise, not necessarily having to do with breeding.
As was a major point at the previous IAC meeting, Stan explained that one of ABC’s main priorities is improving tetraploid brood stock. It is clear that the number one priority is getting a healthy animal into condition and whether that is an environmental issue, a husbandry issue, or a water quality issue is something that needs to be studied. Stan plans to write a proposal specifically targeted at tetraploid health as part of a Sea Grant Aquaculture Extension and Technology Transfer proposal due April 18, 2013. He discussed that Dave Kuhn also will be submitting a proposal on water quality, also beneficial to the industry. If the industry thought the tetraploid question was important, then the two proposals would go head to head. Rather than try to mesh a tetraploid proposal with the water quality proposal, Roger Mann recommended that it was best to keep them separate.

The meeting then moved towards an in-depth discussion towards deciding what industry wanted to see in a tetraploid health proposal. Roger Mann argued that when looking at health and conditioning, there needs to be specific quantitative metrics agreed upon, rather than qualitative assessment, because qualitative assessment among individuals may be very different. Metrics such as growth and mortality are easily measured but the metrics of health need to be agreed upon. Stan suggested measuring glycogen and lipid in tetraploids prior to their winter dormancy period as a possible metric.

A side discussion resulted in which it was asked if variation in conditioning (sexual maturation) within a group under a ‘perfect’ conditioning regime was normal. AJ Erskine said that he could look the external appearance of a tetraploid group and can have a good idea from that if they will condition well. For example, if the shell has been challenged with *Polydora*, they won’t condition well. He pointed out that he got good tetraploids from Kinsale this year that had a good external appearance and they have performed well. Mike Congrove stated that he needed consistent conditioning within a tetraploid group. He said typically 25-35% condition well at the beginning of the season, 30-40% are useable and that conditioning gets worse as the spawning season progresses. This is contrary to conditioning success as noted by Tim Rapine who said that he tends to find better conditioning success later in the season. Tom Gallivan pointed out that the long conditioning time required for tetraploids presently is expensive.

Moving back towards points to test in the proposal, Stan suggests looking at the effect of grow out site on hatchery success. In other words, how do tetraploids grown/acclimated in one salinity/environment perform when moved to a hatchery with a different set of environmental parameters? Another question was, does salinity effect sex ratio?

In summary, the main objectives of the proposal will be along the lines of the following:
1. Determine what environmental conditions (e.g., salinity, disease pressure etc.) contribute to creating healthy tetraploids
2. What is considered to be normal variation in the field within a stock of tetraploids (growth, sex ratio etc.)?
3. What conditions in the field prior to bringing tetraploids into the hatchery contribute to high fecundity?
4. Under ‘perfect’ conditioning regimes what is normal for variation in fecundity in the hatchery?

In order to get at the above questions, Stan asked for volunteers from the industry to participate in this proposal. He stated that even if the proposal is not funded, ABC will still complete this study but at a smaller scale, perhaps with less detailed analysis of condition index etc. The proposal requires a range of sites with different salinities for grow-out and then hatcheries, also at different salinities for conditioning. Tim Rapine, AJ Erskine, Tom Gallivan (2 sites) and John Vigliotta agreed to participate in this study (5 sites total). Tetraploids will be distributed in the near future to the above individuals and they will be husbanded until next spawning season. Then the tetraploids grown in each location will be divided and distributed to the different hatcheries (KCB, OSH, Ward Oyster, and Cherrystone hatcheries in Cheriton and Willis Wharf), and put in their conditioning systems. Prior to the dormancy period, and prior and during conditioning, samples from each group of tetraploids will be analyzed for specific measures of health and fecundity. Stan said he would get out a summary of the proposal he wanted to submit and asked that the industry members present write a letter of support for that proposal.

As an aside, Stan mentioned that he had a colleague who was looking into the possibility of cryopreservation of 4N sperm.

The meeting then moved towards a discussion of the proposed new research hatchery at VIMS. Stan presented the proposed hatchery square footage based on function and showed a schema for the structure. Stan asked, at this point, what are the industry’s concerns about the hatchery.

AJ Erskine said he would support a new hatchery now as long as the effort was well coordinated with industry members when presented to Richmond. John Vigliotta voiced concern that he did not want ABC to compete with the Virginia industry, for example, giving away small seed for free when CBF, for example, could be paying for it.

The meeting then diverted into a discussion on ABCs practice of giving away oysters for free to various groups. After a long discussion it was proposed that, in the interests of transparency, ABC would send all requests for oysters through Marine Advisory Services. (Roger would discuss this idea with Tom Murray.) MAS would then send out these requests to members of industry with a window to respond. If industry chose not to fill that request, then ABC was given permission to do so. Members of the IAC asked that a written description of this policy be put on the VIMS website along with minutes from all IAC meetings. This was agreed upon by
Stan. ABC will also put on the VIMS web page our public, institutional policy on distribution of oysters.

Back on the subject of the research hatchery, Tom Gallivan said that he wants the documents presented to Richmond to state that ABC will not compete with the Virginia industry and that the hatchery is for research purposes only. He suggested the hatchery proposal also be put on the VIMS website and circulated. AJ Erskine also said that it is important that the hatchery document clearly outline what the focus of the research hatchery is.

Stan closed the meeting to discuss when the IAC should meet again. It was left that IAC would convene again in the early fall, such as September.