EAS-WSCS joint session on sturgeons at "Aquaculture Europe 2008" held in Krakow, Poland, September 17, 2008

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The session was jointly organized by EAS and WSCS and was well attended, although the subject coverage was limited. A world-wide overview on the sturgeon culture development and a projected forecast was presented by Dr. Paolo Bronzi, indicating the growing interest in sturgeon culture while also identifying the options and limitations in order to bring some reality to some of the expectations raised by various sectors of the industry. The session received several contributions on diverse subject, some with highly innovative approaches to hormonal control of maturation, nutrition and growout strategies. Additional to the oral presentations there were eight posters dealing with diverse subjects ranging from histological investigation in relation to nutrition and disease, larval rearing and growth as well as with genetic markers to optimize brood stock monitoring.

The various discussions following the presentations revealed that our knowledge in sturgeon culture is still in need of extensive research on specific issues that are not typically addressed in common aquaculture sciences and this holds specifically for conservation culture.
The session contributions also demonstrated that sturgeon production through aquaculture is increasing rapidly for both meat and caviar products. This is in response to the drastic decline of sturgeon stocks world-wide. Although the analysis presented by WSCS in the introductory lecture on the status of sturgeon aquaculture indicates that market chances are fairly good for future development of the sturgeon culture industry, warnings were raised that the market will diversify into a smaller component for high-cost, traditional caviar products derived from key sturgeon species such as the beluga, while „new" products from less valued sturgeon species will enter the market for which a new clientel will accept moderate price levels. Further, the present situation with an increasing number of phantasy-names for caviar products will not only confuse the traditional customer but also discredit the industry. The industry is well advised to be pro-active in supporting the initiatives by TRAFFIC, CITES, IUCN and WSCS for strict labeling and tight trade control in caviar products. Special attention was drawn to the recent publication on „Identification of Acipenseriformes species in Trade" which is based on the outcome of a recent joint workshop organized by WSCS in conjunction with IUCN-CITES (published in Journal of Applied Ichthyology, vol 24, supplement 1, 2008).

The session also recognized the need for the development of brood stock management and juvenile rearing techniques for endangered sturgeon species. There is a need to produce juveniles with high fitness for survival in nature. It has to be realised that aquaculture production for commercial markets and aquaculture for species conservation require TOTALLY DIFFERENT strategic approaches and methods. While commercial production thrives mainly for best growth, good health and effective feed conversion, cultivation for conservation is NOT concerned with ANY of these priorities but **aims at producing juveniles for fitness for survival in the receiving habitat**. This requires due attention to maintain the genetic identity of the stocks to be supported (appropriate brood stock management to avoid inbreeding and outbreeding depression) and early exposure to natural stressors (avoiding domestication and sensory deprivation in the monotony often encountered in commercial aquaculture facilities).

Session contributions

Bronzi, P., Rosenthal, H., Gessner, J., Pourkazemi, M., Ceapa, C: World sturgeon aquaculture – an overview.

Vasilieva, L.M.:, Petrushina, T.N.: An attempt to obtain offspring from sturgeon breeders at untraditional dates.

Degani, G., Hurvitz, A., Jackson, K., Goldberg, D., Yom-Din, S., Levavi-Sivan, B.: The involvement of growth hormone and sex hormones in growth and maturation of male and female Russian sturgeon *Acipenser gueldenstaedtii* – basic and applied aspects.

Rurangwa, E., Delaedt, Y., Geraylou, Z., Van der Wiele, T., Courtin, C.M., Delcour, J.A., Olivier, F.: Dietary effect of arabinoxyland oligosaccharides on zootechnical performance and hindgut microbial fermentation in Siberian sturgeon and African catfish.

Flahatkar, B., Effatpanath, I., Meknatkhan, B. : A comparative study of feeding methods: effects on growth performance of great sturgeon juveniles.

Namin, J.I., Ramezanpoor, Z., Arshad, U. : Freshwater Anostracans *Streptocephalus proboscideus* as a live food in larviculture of the Persian sturgeon, *Acipenser persicus*.

Posters:

Vasilieva, L.M., Tyapugin, V.V.: Formation of Beluga Huso huso production stocks in the monitored conditions of the Lower Volga River. (Poster No 260)

Rónyai, A. : The thermal growth coefficient model for Siberian sturgeon Acipenser baerii (Brandt). (Poster No. 261)

Kovalev, K., Kupchenko, S., Douma, V., Douma, L, Dementiev, V., Ponomareva,, V., Recoub ratsky, A. : Estradiol-induced sex reversal in bester and Russian sturgeon (Acipenseridae). (Poster No. 262)

Jamili, S., Kadhodai, A., Sepahdari, A., Kakolaki, S. : The effect of thyroxin on growth of juvenile Acipenser persicus. (Poster No. 263)

Kaczmarczyk, D., Luczynski, M., Kolman, R.: Assemblage of spawning pairs of farmed American paddlefish based on their individual genetic profiles – a new tool in managing of the broodstock`s gene pool. (Poster No. 264)

Abedi, M.: Assigning of mortality percentage in Acipenser persicus eggs. (Poster No. 265)

Askarian, F.: The effect of feeding history on handling and confinement stress response in one year old reared *Huso huso.* (Poster No. 266)

Shamoushaki, M.M.N. , Nezami, S.A., Sari, A.E., Khara, H.: Determining the lethal concentrations (LC50/96) of heavy metals (lead, zinc and cadmium) on Acipenser nudiventris fingerlings. (Poster No. 267)**.**