

SEP 9 1986

1986 INFORMATION EXCHANGE FROM
THE UNITED STATES AQUACULTURE
PANEL, UJNR, TO THE JAPANESE
PANEL, UJNR

Prepared by:

Ben Drucker
National Marine Fisheries
Service
National Oceanic and
Atmospheric Administration
U.S. Department of Commerce

1. Mulcahy, D., and J. Wood
1986. A natural epizootic of infectious haematopoietic necrosis in imported Atlantic salmon, Salmo salar L., reared in the enzootic region. J. Fish Dis. 9:173-175.
2. Mulcahy, D. and R.J. Pascho
1985. Vertical transmission of infectious haematopoietic necrosis virus in sockeye salmon, Oncorhynchus nerka (Walbaum): isolation of virus from dead eggs and fry. J. Fish Dis. 8:393-396.
3. Yasutake, W.T., and R.W. Gold
1985. Direct fluorescent antibody technique for the detection of bacterial kidney disease in paraffin-embedded tissues. Fish Path. 19(4):271-272.
4. Wedemeyer, G.A., D.J. McLeay, and C. P. Goodyear
1984. Assessing the tolerance of fish and fish populations to environmental stress: The problems and methods of monitoring. In: Contaminant Effects on Fisheries, Edited by V.W. Cairns, P.V. Hodson, and J.O. Nriagu. John Wiley and Sons, Inc., pps 164-195.
5. Phillips, R.B., K.D. Zajicek, and F.M. Utter
1985. Q band chromosomal polymorphisms in chinook salmon (Oncorhynchus tshawytscha). Copeia, 2:273+278.
6. Milner, G.B., D.J. Teel, F.M. Utter, and G.A. Winans
1985. A genetic method of stock identification in mixed populations of Pacific salmon, Oncorhynchus spp. Mar. Fish. Rev. 47(1):1-8.
7. Campton, D.E., and F.M. Utter
1985. Natural hybridization between steelhead trout (Salmo gairdneri) and coastal cutthroat trout (Salmo clarki clarki) in two Puget Sound streams. Can.J. Fish. Aquatic Sci. 42(1):110-119.
8. Sindermann, C.J.
1985. The role of disease in the management of cultivated marine fish and shellfish populations. Trans. Fiftieth N. Amer. Wildl. Nat. Res. Conf., Mar.15-20, 1985. Wildl. Manage. Inst., Wash., D.C. pps. 641-649.

9. Sindermann, C.J.
1984. Fish and environmental impacts. Fourth Congress European Ichthyologists, Hamburg, Germany, 1982, pps. 125-160.
10. Sindermann, C.J.
1984. Disease in marine aquaculture. Helgolander Meeresunters, 37:505-532.
11. McCormick, S.D., and R.J. Naiman
1984. Some determinants of maturation in brook trout. Salvelinus fontinalis. Aquaculture, 43:269-278.
12. Anonymous.
1983. Advances in aquaculture and fisheries research. Report of a California Sea Grant Symposium, May 18-20, 1983, University of California, Davis, California, 55pages.
13. Pardy, C.R., W.L. Griffin, M.A. Johns, and A.L. Lawrence.
1983. A preliminary economic analysis of stocking strategies for penaeid shrimp culture. J. World Maricult. Soc. 14:49-63.
14. Chamberlain, G.W. and A.L. Lawrence.
1981. Effect of light intensity and male and female eyestalk ablation on reproduction. J. World Maricult. Soc. 12(2):357-372.
15. Johns, M., W. Griffin, and A. Lawrence.
1981. Budget analysis of penaeid shrimp hatchery facilities. J. World Maricult. Soc. 12(2):305-321.
16. Beynon, J.L., D.L. Hutchins, A.J. Rubino, A.L. Lawrence, and B.R. Chapman.
1981. Nocturnal activity of birds on shrimp mariculture ponds. J. World Maricult. Soc. 12(2):63-70.
17. Lawrence, A.L., M.A. Johns, and W.L. Griffin
1983. Shrimp aquaculture: State of the art. Texas A&M University, R/M1, TAMU-SG-84-502, Sea Grant College Program, 12 pages.
18. Lester, L.J.
1983. Developing a selective breeding program for penaeid shrimp mariculture. Sea Grant College Program, Texas A&M University, College Station, Texas, TAMU-SG-84-804, From: Aquaculture, 33:41-50.

19. Mann, R.
1983. Bivalve mollusc hatcheries: A critical appraisal of their development and a review of their potential value in enhancing the fisheries of developing nations. *Mems. Asoc. Latinoam. Acuicult.*, 5(2):97-105.
20. Caswell, H., R.J. Naiman, and R. Morin
1984. Evaluating the consequences of reproduction in complex salmonid life cycles. *Aquaculture*, 43:123-134.
21. DiMichele, L., and M.H. Taylor, and R. Singleton.
1981. The hatching enzyme of Fundulus heteroclitus. *J. Exper. Zool.* 216:133-14-.
22. Weisberg, S.B., and V.A. Lotrich
1982. Ingestion, egestion, excretion, growth and conversion efficiency for the mummichog, Fundulus heteroclitus (L). *J. Exper. Mar. Biol. Ecol.* 62:237-249.
23. Hedrick, R.P., J. Speas, M.L. Kent, and T. McDowell
1985. Adenovirus-like particles associated with a disease of cultured white sturgeon, Acipenser transmontanus. *Can. J. Fish Aqu. Sci.* 42(7):1321-1325.
24. Kent, M.L. and R.P. Hedrick
1985. Transmission of the causative agent of proliferate kidney disease (PKD) with the blood and spleen of infected fish, further evidence that the PKX parasite belongs to the phylum myxozoa. *Bull. Eur. Ass. Fish. Pathol.*, 5(2):39-42.
25. Hedrick, R.P., M.L. Kent, J.S. Foott, R. Rosemark, and D. Manzer.
1985. Proliferative kidney disease (PKD) among salmonid fish in California, U.S.A., A second look. *Bull. Eur. Ass. Fish Pathol.* 5(2):36-38.
26. Lin, R.J., R.J. Rivas, R.S. Nishioka, E.G. Grau, and H.A. Bern.
1985. Effects of feeding triiodothyronine (T₃) on thyroxin (T₄) levels in the steelhead trout, Salmo gairdneri. *Aquaculture* 45:133-142.
27. Collie, N.L. and J. Stevens.
1985. Abstracts of some current studies on salmonid smoltification. *Aquaculture* 45:375-394.
28. Collie, N.L., and JJ. Stevens.
1985. Hormonal effects on L-Proline transport in coho salmon (Oncorhynchus kisutch) intestine. *Gen. and Comp. Endocrin.*, 59:399-409.

29. Devries, M.C., C.E. Epifanio, and A.I. Dittel
1983. Reproduction periodicity of the tropical crab Callinectes arcuatus Ordway in Central America. Estuarine, Coastal and Shelf Science, 17:709-716.
30. Sullivan, C.V., W.W. Dickhoff, C.V.W. Mahnken, and W.K. Hershberger
1985. Changes in the hemoglobin system of the coho salmon, Oncorhynchus kisutch during smoltification and triiodothyronine and propylthiouracil treatment. Comp. Biochem. Physiol. 81A(4):807-813.
31. Woods, L.C., J.H. Kerby, and M.T. Huish
1985. Culture of hybrid striped bass to marketable size in circular tanks. Prog. Fish. Cult. 47(3):147-153.
32. Levine, D.M. and S.D. Sulkin
1984. Nutritional significance of long-chain poly-unsaturated fatty acids to the zoeal development of the brachyuran crab, Eurypanopeus depressus (Smith) J. Exp. Mar. Biol. Ecol. 81:211-223.
33. Hedrick, R.P., M.L. Kent, R. Rosemark, and D. Manzer
1984. Proliferative kidney disease (PKD) in Pacific salmon and steelhead trout. J. World. Maricult. S c. 15:318-325.
34. Kuban, F.D., A.L. Lawrence, and J.S. Wilkenfeld
1985. Survival, metamorphosis and growth of larvae from four penaeid species fed six food combinations. Aquaculture 47:151-162.
35. Nelson, J.S., J.S. Rohovec, and J.L. Fryer
1985. Tissue location of Vibrio bacterin delivered by intraperitoneal injection, immersion and oral routes to Salmo gairdneri. Fish Pathology 19(4):263-269.
36. Fisher, J.P., and W.G. Pearcy
1985. Studies of juvenile salmonids off the Oregon and Washington coast, 1985. Oregon State University, Sea Grant College Program Publication ORESU-T-85-004, Reference 85-14, November 1985, Cruise Report.
37. Klontz, G.W., T.J. McArthur, and D.I. Klontz
1983. Implementation of microcomputer programs in fish farming. University of Idaho, Moscow, Idaho, WSG-TA-83-15.

38. Groman, D.B., and G.W. Klontz
1983. Chemotherapy and prophylaxis of bacterial kidney disease with erythromycin. *J. World Maricult. Soc.* 14:226-235.
39. Johnson, O.W., P.R. Rabinovich, and F.M. Utter
1984. Comparison of the reliability of a Coulter counter with a flow cytometer in determining ploidy levels in Pacific salmon. *Aquaculture*, 43:99-103.
40. Bray, W.A., and A.L. Lawrence
1984. Sourcing Penaeus setiferus: A summary of larval production, incidence of capture of mated female, and mating incidence by time of day on research cruises 1981-1983. *J. World Maricult. Soc.* 15:11-28.
41. Boudreau, K.N., and D.E. Conklin
1985. Antinutritional properties of egg white in diets for lobsters. *Bull. Jap. Soc. Sci. Fish.* 51(6):953-957.
42. Lane, S.
1984. The implementation and evaluation of a genetic mark in a hatchery stock of pink salmon Oncorhynchus gorbuscha in southeast Alaska. University of Alaska, Juneau; Thesis for the degree of Master of Science, 107 pages.
43. Adams, A.E.
1985. Some aspects of reproductive biology of the crab Chionoecetes bairdi: final project report. Univ. Alaska, Alaska Sea Grant Report 85-7, IMS Report 85-1
44. Gharrett, A.
1985. Genetic interaction of Auke Creek hatchery pink salmon with natural spawning stocks in Auke Creek. Univ. Alaska, School of Fisheries and Science, Alaska Sea Grant Report 85-9, SFS-UAJ-8509.
45. Wilkenfield, J.S., J.M. Fox, and A.L. Lawrence
1981. Consumption of frozen and live Artemia by protozoa of Penaeus setiferus. *J. World Maricult. Soc.* 12(2):250-259.
46. Grau, E.G., A.W. Fast, R.S. Nishioka, H.A. Bern, D.K. Barclay, and S.A. Katase
1985. Variations in thyroid hormone levels and in performance in the seawater challenge test accompanying development in coho salmon raised in Hawaii. *Aquaculture*, 45:121-132.
47. R.S. Nishioka, G. Young, H.A. Bern, W. Jochimsen, and C. Hiser
1985. Attempts to intensify the thyroxin surge in coho and king salmon by chemical stimulation. *Aquaculture*, 45:215-225.

48. Patino, R., C.B. Schreck, and J.M. Redding
1985. Clearance of plasma corticosteroids during smoltification of coho salmon, Oncorhynchus kisutch. Comp. Biochem. Physiol., 82A(3):531-535.
49. Winton, J.R., C.N. Lannan, D.P. Ransom, and J.L. Fryer
1985. Isolation of a new virus from chinook salmon, Oncorhynchus tshawytscha in Oregon, U.S.A. Fish Pathology, 20(2/3):373-380.
50. Rehnberg, B.G., B. Jonasson, and C.B. Schreck
1985. Olfactory sensitivity during parr and smolt developmental stages of coho salmon. Trans. Amer. Fish. Soc., 114:732-736.
51. Kerns, C.
1985. Where to get more information on farming salmon and trout in net pens. Aquaculture Notes, University of Alaska, Alaska Sea Grant Program, Aquaculture Note No. 8.
52. Sparks, A.K. and J. Frank
1985. A preliminary report on the diseases of Alaska king crabs. Proc. Int. King Crab Symp., Anchorage, Alaska, pps 333-339.
53. Sparks, A.K., J.F. Morado, and J.W. Hawkes
1985. A systemic microbial disease in the Dungeness crab, Cancer magister, caused by a Chlamydia-like organism. J. Invert. Path. 45:204-217.
54. Davis, K.B., B.A. Simco, C.A. Goudie and R. Snellgrove
1985. Influence of non-aromatizable androgens and aromatase inhibition on sex determination in channel catfish. Amer. Soc. Zool. Abstract.
55. Davis, K.B., P. Torrance, N.C. Parker and M.A. Suttle
1985. Growth, body composition and hepatic tyrosine aminotransferase activity in cortisol-fed channel catfish, Ictalurus punctatus Rafinesque. J. Fish Biol. 27:177-184.
56. Fitzmayer, K.M., J.G. Geiger and M.J. van den Avyle
1985. Acute toxicity effects of simazine and Daphnia pulex and larval striped bass. Proc. Annual Conf., S.E. Assos. Fish and Wildl. Agencies. 36:146-156.
57. Geiger, J.G., and N.C. Parker
1985. Survey of striped bass hatchery management in the southeastern United States. Prog. Fish Cult. 47(1): 1-13.

58. Geiger, J.G., C.J. Turner, K. Fitzmayer, and W.C. Nichols
1985. Feeding habits of larval and fingerling striped
bass and zooplankton dynamics in fertilized rearing
ponds. Prog. Fish. Cult. 47(4):213-223.
59. Goudie, C.A.
1984. Extraction of a synthetic androgen from fish
muscle and quantitation by high performance liquid
chromatography. Steroids 44(3):241-252.
60. Goudie, C.A.
1985. Distribution and elimination of a synthetic steroid
from fish tissues. Res. Info. Bull 85-17 U.S. Fish
and Wildlife Service, Div. Fish. Ecol. Res.
61. Goudie, C.A., B.A. Simco and K.B. Davis
1985. Evaluation of gender on growth of channel cat-
fish. Res. Info Bull. 85-16 U.S. Fish and Wildlife
Service, Div. Fish. Ecol. Res.
62. Klar, G.T.
1985. Coded wire tagging technique for striped bass.
Res. Info. Bull. U.S. Fish and Wildlife Service, Div.
Fish Ecol. Res. Number 85-20.
63. Noeske-Hallin, T.A., R.E. Spieler, N.C. Parker and M.A.
Suttle
1985. Feeding time differentially affects fattening
and growth of channel catfish. J. Nutrition, 115(9):
1228-1232.
64. Parker, N.C.
1985. Status and overview of fish culture systems and
techniques in the United States (in English). Pages
100-123 in E.P. Yakovleva (ed.) Aquaculture in the
USSR and USA: Proceedings of a Soviet-American Sympos-
ium on Aquaculture. Rotaprint UIRNO, Moscow, U.S.S.R.
(Title translated from Russian).
65. Parmley, D.C. and J.G. Geiger
1985. Succession patterns of zooplankton in fertilized
culture ponds without fish. Prog. Fish Cult. 47(3):
183-186.
66. Fitzmayer, K.M., J.I. Broach and R.D. Estes.
1986. Effects of supplemental feeding habits of striped
bass in ponds. Prog. Fish Cult. 48(1):18-24
67. Klar, G.T., L.A. Hanson and S.W. Brown
1986. Diet related anemia in channel catfish: case
history and laboratory induction. Prog. Fish. Cult.
48(1):60-64.

68. Meade, J.W.
1985. Allowable ammonia for fish culture. Prog. Fish Cult. 47(3):135-145.
69. Meade, J.W. and R.L. Herman
1986. Histological changes in cultured lake trout, Salvelinus namaycush, subjected to cumulative loading in a water reuse system. J. Fish Aquatic Sci. 43(1):228-231.
70. Krise, W.F. and J.T. Fuss
1986. Managing water heating costs for intensive culture of tiger muskellunge. Sympos. on Muskellunge, Amer. Fish. Soc. Spec. Publ., In Press.
71. Bulkowski, L., W.F. Krise and K.A. Kraus
1985. Purification of Cyclops cultures by ph shock (Copepoda). Crustaceana 48(2):179-182.
72. Krise, W.F. and J.W. Meade
1986. Review of intensive culture of walleye fry. Prog. Fish. Cult. 48(2):81-89.
73. Soderberg, R.W. and W.F. Krise.
1986. Effects of rearing density on growth and survival of lake trout. Prog. Fish. Cult. 48(1): 30-32.
74. Krise, W.F., L. Bulkowski, A.D. Shellman, K.A. Kraus, and R.W. Gould
1986. Increased walleye egg hatch and larval survival after protease treatment of eggs. Prog. Fish. Cult. 48(2):95-100.
75. Meade, J.W. and R.W. Gould
1986. Effect of series-reuse rearing methods on the immune response of lake trout, Salvelinus namaycush. Abstract, World Mariculture Society annual meeting
76. Meade, J.W. and J.C. Skea
1986. Lake trout, (Salvelinus namaycush) egg and fry mortality related to quality of "hardening" water and incubation temperature. Abstract, World Mari-Society annual meeting.
77. Department of the Interior
1986. U.S. Fish and Wildlife Service, National Fisheries Center, Fisheries Academy. Course Catalog, 1987.

78. Meade, J.W.
1986. Toward a method of production capacity assessment (PCA) for fish culture water sources. Abstract, World Mariculture Society, Amer. Fish. Soc. Fish Cult. Sect.
79. Meade, J.W., P. Chilson and M. Rutzke
1986. A comparison of indophenol and salicylate-hypochlorite methods for determination of ammonia in fish culture water. Abstract, World Mariculture Society, Amer. Fish. Soc. Fish Cult. Sect.
80. Meade, J.W., L. Klock, L. Bulkowski, C. Johnson and J.S. Ramsey.
1986. Physiological changes in lake trout reared under various levels of cumulative loading. Abstract, World Mariculture Society, Amer. Fish. Soc. Fish Cult. Sect.
81. Krise, W.F. and J.W. Meade
1986. Effects of gas supersaturation on hatchery fish cultured for restoration programs. Abstract, 42nd Northeast Fish and Wildlife Conference
82. Meade, J.
1986. Do hatchery management practices affect survival after stocking? Abstract, 42nd Northeast Fish and Wildlife Conference.
83. Tettelbach, S.T., P.J. Auster, E.W. Rhodes and J.C. Widman
1985. A mass mortality of northern bay scallops, Argopecten irradians irradians, following a severe spring rainstorm. The Veliger 27(4):381-385.
84. Rhodes, E.W.
1984. Aquaculture. In: Proceedings, Conference on The Aquatic Environment: Problems and Perspectives, Western Connecticut State University, Danbury, Connecticut, pages 9-20.
85. Rhodes, E.W.
1986. Aquaculture prospects for bay scallops. Connecticut Currents, Sea Grant Marine Advisory Service, University of Connecticut Cooperative Extension Service, 1 page.
86. Sabo, B.D. and E.W. Rhodes.
1986. Indexed bibliography of the bay scallop (Argopecten irradians). In press.

<追加>

- 87 1. Hughes, J.T. and G.C. Matthiessen 1962. Observations on the biology of the american lobster, Homarus americanus. Limnology and Oceanography, 7: 414-421.
- 88 2. Cobb, J.S. et al. 1983. Behavior and distribution of larval and early juvenile Homarus americanus. Can. J. Fish. Aquat. Sci. 40: 2184-2188.
- 89 3. Syslo, M. and J.T. Hughes 1981. Vegetable matter in lobster(Homarus americanus) diets(decapoda, astacidea). Crustaceana 41:10-13.
- 90 4. Increasing clam harvests in Maine. prepared by Maine/ New Hampshire Sea Grant College Program(1983).