

**Reference List for Proposed Rule to Designate Critical Habitat for the Threatened
Southern Distinct Population Segment of North American Green Sturgeon**
September 8, 2008

- Adams, P. B., C. B. Grimes, S. T. Lindley, and M. L. Moser. 2002. Status review for North American green sturgeon, *Acipenser medirostris*. NOAA, National Marine Fisheries Service, Southwest Fisheries Science Center, Santa Cruz, CA. 50 p.
- Allen, P. J. and J. J. Cech. 2007. Age/size effects on juvenile green sturgeon, *Acipenser medirostris*, oxygen consumption, growth, and osmoregulation in saline environments. *Environmental Biology of Fishes* 79:211-229.
- Allen, P. J., B. Hodge, I. Werner, and J. J. Cech. 2006. Effects of ontogeny, season, and temperature on the swimming performance of juvenile green sturgeon (*Acipenser medirostris*). *Canadian Journal of Fisheries and Aquatic Sciences* 63:1360-1369.
- Artyukhin, E. N., P. Vecsei, and D. L. Peterson. 2007. Morphology and ecology of Pacific sturgeons. *Environmental Biology of Fishes* 79:369-381.
- Benson, R. L., S. Turo, and B. W. McCovey Jr. 2007. Migration and movement patterns of green sturgeon (*Acipenser medirostris*) in the Klamath and Trinity rivers, California, USA. *Environmental Biology of Fishes* 79:269-279.
- Biological Review Team (BRT). 2005. Green sturgeon (*Acipenser medirostris*) status review update. Prepared for the National Marine Fisheries Service. 36 pp.
- Brown, K. 2007. Evidence of spawning by green sturgeon, *Acipenser medirostris*, in the upper Sacramento River, California. *Environmental Biology of Fishes* 79:297-303.
- California Department of Fish and Game. 2002. California Department of Fish and Game comments to NMFS regarding green sturgeon listing. California Department of Fish and Game. 79 pp (plus appendices).
- Cech, J. J., S. I. Doroshov, G. P. Moberg, B. P. May, R. G. Schaffter, and D. W. Kohlhorst. 2000. Biological assessment of green sturgeon in the Sacramento-San Joaquin watershed (phase 1). Final report to the CALFED Bay-Delta Program. Project #98-C-15, Contract #B-81738. *Cited in:* COSEWIC. 2004. COSEWIC assessment and update status report on the green sturgeon *Acipenser medirostris* in Canada. Committee on the Status of Endangered Wildlife in Canada, Ottawa. vii + 31 pp.
- Chadwick, H. K. 1959. California sturgeon tagging studies. *California Fish and Game* 45:297-301.

- Deng, X. 2000. Artificial reproduction and early life stages of the green sturgeon (*Acipenser medirostris*). Master's Thesis. University of California, Davis. 62 pp.
- Deng, X., J. P. Van Eenennaam, and S. I. Doroshov. 2002. Comparison of early life stages and growth of green and white sturgeon. American Fisheries Society Symposium 28:237-248.
- Detlaff, T. A., A. S. Ginsburg, and O. J. Schmalhausen. 1993. Sturgeon fishes: Developmental biology and aquaculture. Springer-Verlag, Berlin. 300 pp.
- Domagalski, J. L., D. L. Knifong, P. D. Dileanis, L. R. Brown, J. T. May, V. Connor, and C. N. Alpers. 2000. Water quality in the Sacramento River Basin, California, 1994-98. U.S. Geological Survey, Sacramento, CA. 44 pp.
- Dumbauld, B. R., D. L. Holden, and O. P. Langness. 2008. Do sturgeon limit burrowing shrimp populations in Pacific Northwest estuaries? Environmental Biology of Fishes, DOI 10.1007/s 10641-008-9333-y:14 pp.
- Emmett, R. L., S. A. Hinton, S. L. Stone, and M. E. Monaco. 1991. Distribution and abundance of fishes and invertebrates in West Coast estuaries, Volume II: Species life history summaries. ELMR Report No. 8. NOAA/NOS Strategic Environmental Assessments Division, Rockville, MD. 329 pp.
- Erickson, D. L. and J. E. Hightower. 2007. Oceanic distribution and behavior of green sturgeon. American Fisheries Society Symposium 56:197-211.
- Erickson, D. L., J. A. North, J. E. Hightower, J. Weber, and L. Lauck. 2002. Movement and habitat use of green sturgeon *Acipenser medirostris* in the Rogue River, Oregon, USA. Journal of Applied Ichthyology 18:565-569.
- Erickson, D. L. and M. A. H. Webb. 2007. Spawning periodicity, spawning migration, and size at maturity of green sturgeon, *Acipenser medirostris*, in the Rogue River, Oregon. Environmental Biology of Fishes 79:255-268.
- Fairey, R., K. Taberski, S. Lamerdin, E. Johnson, R. P. Clark, J. W. Downing, J. Newman, and M. Petreas. 1997. Organochlorines and other environmental contaminants in muscle tissues of sportfish collected from San Francisco Bay. Marine Pollution Bulletin 34:1058-1071.
- Farr, R. A., M. L. Hughes, and T. A. Rien. 2001. Green sturgeon population characteristics in Oregon. Annual progress report. Sport Fish Restoration Project F-178-R, Oregon Department of Fish and Wildlife, Portland, Oregon. 31 pp.
- Farr, R. A. and J. C. Kern. 2004. Green sturgeon population characteristics in Oregon. Annual progress report. Sport Fish Restoration Project F-178-R Oregon Department of Fish and Wildlife, Portland, Oregon. 32 pp.

- . 2005. Green sturgeon population characteristics in Oregon. Final progress report. Sport Fish Restoration Project F-178-R, Oregon Department of Fish and Wildlife, Portland, Oregon. 73 pp.
- Farr, R. A. and T. A. Rien. 2002. Green sturgeon population characteristics in Oregon. Annual progress report. Sport Fish Restoration Project F-178-R, Oregon Department of Fish and Wildlife Portland, Oregon. 46 pp.
- . 2003. Green sturgeon population characteristics in Oregon. Annual progress report. Sport Fish Restoration Project F-178-R, Oregon Department of Fish and Wildlife, Portland, Oregon. 29 pp.
- Feist, G. W., M. A. H. Webb, D. T. Gundersen, E. P. Foster, C. B. Schreck, A. G. Maule, and M. S. Fitzpatrick. 2005. Evidence of detrimental effects of environmental contaminants on growth and reproductive physiology of white sturgeon in impounded areas of the Columbia River. *Environmental Health Perspectives* 113:1675-1682.
- Fitch, J. E. and R. J. Lavenberg. 1971. Marine food and game fishes of California. University of California Press, Berkeley. 179 pp. Cited in Moyle *et al.*, 1992.
- Fitch, J. E. and S. A. Schultz. 1978. Some rare and unusual occurrences of fishes off California and Baja California. *California Fish and Game* 64:74-92. Cited in: Moyle, P. B., P. J. Foley, and R. M. Yoshiyama. 1992. Status of green sturgeon, *Acipenser medirostris*, in California. Final Report submitted to the National Marine Fisheries Service, University of California, Davis. 11 pp.
- Foster, E. P., M. S. Fitzpatrick, G. W. Feist, C. B. Schreck, and J. Yates. 2001a. Gonad organochlorine concentrations and plasma steroid levels in white sturgeon (*Acipenser transmontanus*) from the Columbia River, USA. *Bulletin of Environmental Contamination and Toxicology* 67:239-245.
- Foster, E. P., M. S. Fitzpatrick, G. W. Feist, C. B. Schreck, J. Yates, J. M. Spitsbergen, and J. R. Heidel. 2001b. Plasma androgen correlation, EROD induction, reduced condition factor, and the occurrence of organochlorine pollutants in reproductively immature white sturgeon (*Acipenser transmontanus*) from the Columbia River, USA. *Archives of Environmental Contamination and Toxicology* 41:182-191.
- Ganssle, D. 1966. Fishes and decapods of San Pablo and Suisun bays. Pages 64-94 in: D. W. Kelley (compiler) (editor). *Ecological studies of the Sacramento-San Joaquin estuary, Part I: Zooplankton, zoobenthos, and fishes of San Pablo and Suisun bays, zooplankton and zoobenthos of the Delta*. California Department of Fish and Game, Fish Bulletin 133.

- Greenfield, B. K., J. A. Davis, R. Fairey, C. Roberts, D. Crane, and G. Ichikawa. 2005. Seasonal, interannual, and long-term variation in sport fish contamination, San Francisco Bay. *Science of the Total Environment* 336:25-43.
- Israel, J. A., J. F. Cordes, M. A. Blumberg, and B. May. 2004. Geographic patterns of genetic differentiation among collections of green sturgeon. *North American Journal of Fisheries Management* 24:922-931.
- Israel, J. A. and B. May. 2006. Green sturgeon in Pacific estuaries: potential impacts of mixed stock fisheries. Presentation at Green Sturgeon Public Scoping Workshops, Sacramento, CA, May 31-June 1, 2006.
- Kelly, J. T., A. P. Klimley, and C. E. Crocker. 2007. Movements of green sturgeon, *Acipenser medirostris*, in the San Francisco Bay Estuary, California. *Environmental Biology of Fishes* 79:281-295.
- Kohlhorst, D. W., L. W. Botsford, J. S. Brennan, and G. M. Cailliet. 1991. Aspects of the structure and dynamics of an exploited central California population of white sturgeon (*Acipenser transmontanus*). Pages 277 - 293 in: P. Willot (editor). *Acipenser: Actes du premier colloque international sur l'esturgeon*. CEMAGREF, Bordeaux, France.
- Kruse, G. O. and D. L. Scarneccchia. 2002. Assessment of bioaccumulated metal and organochlorine compounds in relation to physiological bismarkers in Kootenai River white sturgeon. *Journal of Applied Ichthyology* 18:430-438.
- Kynard, B., E. Parker, and T. Parker. 2005. Behavior of early life intervals of Klamath River green sturgeon, *Acipenser medirostris*, with a note on body color. *Environmental Biology of Fishes* 72:85-97.
- Leopold, L. B., M. G. Wolman, and J. P. Miller. 1992. Fluvial processes in geomorphology, 2nd edition. Dover Publications, Inc., New York, NY.
- Lindley, S. T., M. L. Moser, D. L. Erickson, M. Belchik, D. W. Welch, E. Rechisky, J. T. Kelly, J. C. Heublein, and A. P. Klimley. 2008. Marine migration of North American green sturgeon. *Transactions of the American Fisheries Society* 137:182-194.
- Mayfield, R. B. and J. J. Cech. 2004. Temperature effects on green sturgeon bioenergetics. *Transactions of the American Fisheries Society* 133:961-970.
- Miller, L. W. 1972. Migrations of sturgeon tagged in the Sacramento-San Joaquin Estuary. *California Fish and Game* 58:102-106.
- Moser, M. and S. Lindley. 2007. Use of Washington estuaries by subadult and adult green sturgeon. *Environmental Biology of Fishes* 79:243-253.

- Moyle, P. B. 2002. Inland fishes of California, 2nd edition. University of California Press, Berkeley and Los Angeles, CA. 502 pp.
- Moyle, P. B., P. J. Foley, and R. M. Yoshiyama. 1992. Status of green sturgeon, *Acipenser medirostris*, in California. Final Report submitted to the National Marine Fisheries Service, University of California, Davis. 11 pp.
- Moyle, P. B., R. M. Yoshiyama, J. E. Williams, and E. D. Wikramanayake. 1995. Fish species of special concern in California, 2nd edition. California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California. 277 pp.
- Nakamoto, R. J., T. T. Kisanuki, and G. H. Goldsmith. 1995. Age and growth of Klamath River green sturgeon (*Acipenser medirostris*). U.S. Fish and Wildlife Service Project 93-FP-13, Yreka, CA. 20 pp.
- Nguyen, R. M. and C. E. Crocker. 2007. The effects of substrate composition on foraging behavior and growth rate of larval green sturgeon, *Acipenser medirostris*. Environmental Biology of Fishes 79:231-241.
- Norris, K. S. 1957. Second record of the green sturgeon in southern California. California Fish and Game 43:317.
- Parsley, M., P. J. Anders, A. I. Miller, L. G. Beckman, and G. T. McCabe Jr. 2002. Recovery of white sturgeon populations through natural production: Understanding the influence of abiotic and biotic factors on spawning and subsequent recruitment. Pages 55-66 in: W. Van Winkle, P. J. Anders, D. H. Secor, and D. A. Dixon (editors). Biology, management, and protection of North American sturgeon. American Fisheries Society, Symposium 28, Bethesda, Maryland.
- Pinnix, W. 2008. Letter to J. Weeder with subject "Green sturgeon acoustic telemetry detections in Humboldt Bay, California." Dated February 20, 2008. Pages 2.
- Radtke, L. D. 1966. Distribution of smelt, juvenile sturgeon, and starry flounder in the Sacramento-San Joaquin Delta with observations on food of sturgeon. Pages 115-129 in: J. L. Turner and D. W. Kelley (editors). Ecological studies of the Sacramento-San Joaquin Delta Part II: Fishes of the Delta. California Department of Fish and Game Fish Bulletin.
- Rien, T. A., L. C. Burner, R. A. Farr, M. D. Howell, and J. A. North. 2000. Green sturgeon population characteristics in Oregon. Annual progress report. Sport Fish Restoration Project F-178-R, Oregon Department of Fish and Wildlife, Portland, Oregon. 67 pp.

- Roedel, P. M. 1941. A sturgeon in southern California waters. California Fish and Game 27:191.
- Rosgen, D. 1996. Applied river morphology. Wildlife Hydrology, Pagosa Springs, CO.
- Schaffter, R. G. 1997. White sturgeon spawning migrations and location of spawning habitat in the Sacramento River, California. California Fish and Game 83:1-20.
- Skinner, J. E. 1962. An historical review of the fish and wildlife resources of the San Francisco Bay area. California Department of Fish and Game, Water Projects Branch Report no. 1, Sacramento, California: California Department of Fish and Game. 226 pp. 226 pp.
- Van Eenennaam, J. P., J. Linares-Casenave, X. Deng, and S. I. Doroshov. 2005. Effect of incubation temperature on green sturgeon embryos, *Acipenser medirostris*. Environmental Biology of Fishes 72:145-154.
- Van Eenennaam, J. P., J. Linares, S. I. Doroshov, D. C. Hillemeier, T. E. Willson, and A. A. Nova. 2006. Reproductive conditions of the Klamath River green sturgeon. Transactions of the American Fisheries Society 135:151-163.
- Van Eenennaam, J. P., M. A. H. Webb, X. Deng, S. I. Doroshov, R. B. Mayfield, J. J. Cech, D. C. Hillemeier, and T. E. Willson. 2001. Artificial spawning and larval rearing of Klamath River green sturgeon. Transactions of the American Fisheries Society 130:159-165.
- Vogel, D. 2005. Evaluation of adult sturgeon migration at the Glenn-Colusa Irrigation District gradient facility on the Sacramento River during 2003. Natural Resource Scientists, Inc., Red Bluff, CA. 15 pp.
- Washington Department of Fish and Wildlife and Oregon Department of Fish and Wildlife. 2002. Status report: Columbia River fish runs and fisheries, 1938-2000. Oregon Department of Fish and Wildlife, Portland. Washington Department of Fish and Wildlife, Olympia. 109 pp.
- Werner, I., J. Linares-Casenave, J. P. Van Eenennaam, and S. I. Doroshov. 2007. The effect of temperature stress on development and heat-shock protein expression in larval green sturgeon (*Acipenser medirostris*). Environmental Biology of Fishes 79:191-200.
- Yoklavich, M. M., G. M. Cailliet, D. S. Oxman, J. P. Barry, and D. C. Lindquist. 2002. Chapter 10: Fishes. Pages 163-185 in: J. Caffrey, M. Brown, W. B. Tyler, and M. Silberstein (editors). Changes in a California estuary: A profile of Elkhorn Slough. Elkhorn Slough Foundation, Moss Landing.

Federal Register Notices:

59 FR 34270 Endangered and threatened wildlife and plants: Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act activities, July 1, 1994.

70 FR 2664 Final Information Quality Bulletin for Peer Review, December 16, 2004.

70 FR 17386 Endangered and threatened wildlife and plants: Proposed threatened status for southern Distinct Population Segment of North American green sturgeon, April 6, 2005.

70 FR 52630 Endangered and threatened species: Designation of critical habitat for 12 evolutionarily significant units of West coast salmon and steelhead in Washington, Oregon, and Idaho, September 2, 2005.

71 FR 17757 Endangered and threatened wildlife and plants: Threatened status for southern Distinct Population Segment of North American green sturgeon. April 7, 2006.

73 FR 18553 Indian entities recognized and eligible to receive services from the United States Bureau of Indian Affairs, April 4, 2008.

Personal communications and unpublished data:

R. Corwin, US Bureau of Reclamation (USBR), Red Bluff, CA. 2008. Unpublished green sturgeon observations. Personal communication.

R. Corwin, USBR, Red Bluff, CA, and B. Poytress, US Fish and Wildlife Service (USFWS), Red Bluff, CA. 2008. Personal communication.

J. Ferdinand, NOAA North Pacific Groundfish Observer Program, Seattle, WA, and D. Stevenson, NMFS, Seattle, WA. 2006. Unpublished observer data on green sturgeon bycatch. Personal communication.

P. Foley. Unpublished data. *Cited in:* Moyle, P. B., R. M. Yoshiyama, J. E. Williams, and E. D. Wikramanayake. 1995. Fish species of special concern in California, 2nd edition. CDFG, Inland Fisheries Division, Rancho Cordova, CA. 277 pp.

O. Langness, Washington Department of Fish and Wildlife, WA. Personal communication. *Cited in:* Moser, M. and S. Lindley. 2007. Use of Washington estuaries by subadult and adult green sturgeon. Environmental Biology of Fishes 79: 243-253.

- S. Lindley, SWFSC, Santa Cruz, CA. 2008. Unpublished green sturgeon tagging and tracking data. Personal communication.
- S. Lindley, SWFSC, Santa Cruz, CA, and J. Israel, UC Davis, Davis, CA. 2007. Unpublished green sturgeon tagging and genetics data. Personal communication.
- S. Lindley, SWFSC, Santa Cruz, CA, and M. Moser, NWFSC, Seattle, WA. 2004. Personal communication. Cited in 70 FR 17386, Endangered and threatened wildlife and plants: Proposed threatened status for southern Distinct Population Segment of North American green sturgeon, April 6, 2005.
- S. Lindley, SWFSC, Santa Cruz, CA, and M. Moser, NWFSC, Seattle, WA. 2005. Personal communication. *Cited in:* Biological Review Team. 2005. Green sturgeon (*Acipenser medirostris*) status review update. Prepared for the National Marine Fisheries Service. 36 pp.
- S. Lindley, SWFSC, Santa Cruz, CA, and M. Moser, NWFSC, Seattle, WA. 2008. Unpublished green sturgeon tagging data. Personal communication.
- B. Poytress, USFWS, Red Bluff, CA. 2008. Unpublished green sturgeon sampling data in the Sacramento River. Personal communication.
- R. Rasmussen, SWFSC, La Jolla, CA. 2006. Unpublished green sturgeon bycatch data for commercial California halibut set net fishery. Personal communication.
- J. Stuart, NMFS, Sacramento, CA. 2008. Personal communication.
- M. Thomas, UC Davis, Davis, CA, and R. Corwin, USBR, Red Bluff, CA. 2008. Unpublished green sturgeon tagging data. Personal communication.
- C. Tracy. Minutes to USFWS meeting. *Cited in:* Moyle, P. B., R. M. Yoshiyama, J. E. Williams, and E. D. Wikramanayake. 1995. Fish species of special concern in California, 2nd edition. CDFG, Inland Fisheries Division, Rancho Cordova, CA. 277 pp.
- J. Van Eenennaam, UC Davis, Davis, CA. 2008. Personal communication.
- West Coast Groundfish Observer Program, NMFS, Seattle, WA. 2008. Unpublished green sturgeon bycatch data from January 2002 to April 2007.