Background

The Diving Safety Program (DSP) administers the compressed gas diving activities of the California Department of Fish and Wildlife (DFW). The DSP oversees dive planning, supports projects in the field, and provides ongoing training for more than 70 active divers statewide. Administered by the Department’s Marine Region, the DSP has been an AAUS Organizational Member since 2000.

Program History

Early Diving

In 1939 commercial hard-hat divers were hired to conduct abalone surveys on the central coast. Department staff also received training, and later that year made their first research dives (Bonnich 1940). Use of ‘heavy gear’ by Department staff continued until the introduction of scuba in the 1950s (Cox 1962).

Early Training and Safety Program

With assistance from the U.S. Navy and Conrad Limbaugh of Scripps Institution of Oceanography, DFW held its first scuba training in 1958. By 1963 a diving safety manual was in place and the first DFG scuba certification school was held at Avalon, Catalina Island in 1962. The “Dept. Diving Certification Board” was organized shortly thereafter to administer the program and ensure safe diving practices.

Early Scuba Projects

In the late 1950s and early 1960s scuba proliferated as a tool for underwater research. The first DFG users were members of the southern California Sportfish Investigation Unit. Other early adopters included kelp forest research projects, the artificial reef project, and abalone project.

Diving Safety Board

The Department’s Diving Safety Board (DSB) helps guide a dive program with an excellent safety record. DSB members serve as technical and policy advisors, act as interagency liaisons, and consult on compliance issues. Several DSB members are active scuba instructors and play a key role in DSP training and safety programs.

Projects

Department divers—more than 70 Scientific Aides, Environmental Scientists, Law Enforcement Staff, Engineers, and select Volunteers—are based in more than 15 locations statewide and are engaged in diving projects in the ocean, rivers, lakes and reservoirs. Many projects are collaborative efforts involving divers from other AAUS Organizational Members and Federal agency dive programs.

Program Statistics

Divers log an average of 2,200 dives annually. Scientific and Training dive activity is projected to the future. Open circuit mode is used for 90% of dives, and closed-circuit rebreather for 10%. Approximately 15% of open circuit dives utilize nitrox as breathing gas.

Training and Education

Since the 1960s more than 300 staff have been trained and have received authorization to dive under DFW auspices. In order to maintain active status divers must log at least 20 dives annually and regularly swimming skills, emergency rescue skills, and diving proficiency each year at certification workshops. In addition to the 100 hour Scientific Diver course offered annually, specialty training offered by the DSB includes:

- Altitude
- Blackwater
- Full Face Mask
- Nitrox
- PADI
- Reefmaster (100% O2)
- Staged Deco, <190 fsw
- Swiftwater
- Tented / Tethered

Management Applications

Diving projects provide information for fishery management (e.g., species abundance, recruitment, size frequency), Diving staff also conduct regular monitoring, sampling, and other myriad tasks mandated by statute, management plans, and regulatory documents.

Research and Monitoring

- Marine Protected Areas
- Nearshore kelp
- Abalone
- Slightly lobsters
- Pacific herring
- Mendar squid
- Southern sea urchin
- Salmoids—EPA Listed

Habitat Protection and Pollution

- Fish passageways
- Invasive Dredged materials
- Water quality (Mussels Watch Program)
- Resource damage assessment

Laws and Regulatory Compliance

- Pollution discharge
- US Code Regulations Title 14, Natural Resources
- Fish and Game Code

REFERENCES


