

The background of the slide features a photograph of several Native American dancers in traditional regalia. They are wearing large, elaborate feathered headdresses and colorful, patterned tunics. The dancers are positioned in a line, and the image is slightly blurred, giving a sense of movement. The text is overlaid on this image.

# **Colville Confederated Tribes Hatchery Monitoring and Evaluation Program**

**Dan Fairbank, Project Leader**

**David Christensen**

**Bernadette Udell**

**Anthony Cleveland**

**Larry Boyd**

**Marvin Bob**

# Bridgeport Tribal Hatchery

- The NPPC approved funding for the Bridgeport Hatchery in October, 1984.
- The project addresses the loss of anadromous fish resources by out-of-kind mitigation of resident salmonid species.
- Currently, a minimum of 22,679 kg (50,000 lbs) of resident salmonids are produced per year and stocked in 30 reservation waters.
- Egg and fish acquisition comes from WDFW facilities and reservation waters.

# Monitoring and Evaluation Program

- **Marking**
- **Creel**
- **Lake and Stream Surveys**
- **Brood Stock Development**
- **Adaptive Management**



# Marking Program

- Goals:
  - Wild hatchery interactions.
  - Document survival of fry, fingerling and yearling plants.
  - Evaluate marking technology.



# Elastomer Tagging

- **Designed and built elastomer tagging trailer (NMT 2001).**
- **Mark 100% hatchery production.**
- **Use 1 color per year in 3 different mark locations.**
- **Results are 86% retention rate to date.**



# Creel Survey

- **Five lakes actively creeled with roving survey.**
- **Multiple lakes under voluntary creel reporting by anglers.**
- **Alows us to determine hatchery and wild fish contribution to subsistence and recreational fisheries.**
- **Identification of elastomer marks by creel clerks allows us to:**
  - Evaluate return-to-creel,
  - Hatchery/wild fish contributions,
  - Catch rates,
  - Relative weights,
  - Hatchery fish survival.

# Lake and Stream Surveys

## Goals:

- Survey habitat types.
- Determine species composition/presence absence.
- Estimate fish populations.
- Identify limiting factors.



# Lake Sampling

- **Oxygen and temperature profiles.**
- **Bathymetric mapping.**
- **Habitat evaluation.**
- **Electrofishing.**
- **Gill net/trap net.**



# Stream Sampling

- Habitat evaluation.
- Data loggers.
- Genetic analysis.
- Species presence/absence.



# Past Brood Stock Program

- Existing free ranging brood stocks.
  - Owhi Lake brook trout.
  - Omak Lake Lahontan cutthroat.
- Rainbow production transferred in from state facilities.



# Current Brood Stock Program

- Maintain Owhi and Omak Lake brood stocks.
- Triploid all incoming rainbow trout.
- Acquire native redband brood stock.



# Brood Stock Status

- **Complete virology analysis of Owhi Lake stock by WSU.**
- **Heat triploid 15 C above ambient for 15 min.**
  - **Brook trout 26% success.**
  - **Rainbow trout 100% success.**
- **Five thousand redband fry acquire from WDFW and four reservation populations identified.**



# Conclusions

- **Oxygen profiles are limiting in many lakes.**
- **Several new fisheries created.**
- **Summer Youth Program**

# Future



Windmill/solar lake  
aeration.

Lake monitoring buoys.

Selective removal of  
undesirable species.

8 1:16 PM

# Summer Youth

- **MandE program employed 19 High School/College bound reservation youth in 2002.**
- **Interns were involved in a variety of fish and wildlife projects throughout the summer.**
- **This program will be continued and expanded as these are our future resource managers.**



# Summary

- **Bridgeport hatchery in operation for 14 years.**
- **Monitoring and Evaluation program instituted in 2001.**
  - **Marking**
  - **Creel**
  - **Lake and stream surveys.**
  - **Brood stock development.**
  - **Adaptive management.**

# Priceless

