

S.172

# AN ACT RELATING TO REQUIRING THE USE OF PERSONAL FLOTATION DEVICES DURING COLD WEATHER

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# 1. Physiological Reality: “Cold Shock”

**Cold Shock Response (First 1–2 Minutes):** Immersion in cold water causes an involuntary gasping reflex, which can lead to inhaling water and immediate drowning, even for strong swimmers. A life jacket keeps the head above water during this reflex.

**Cold Incapacitation (First 10–30 Minutes):** Cold water causes blood to rush to the core, causing rapid loss of muscle control in arms and legs, making it impossible to swim or hold onto a boat.

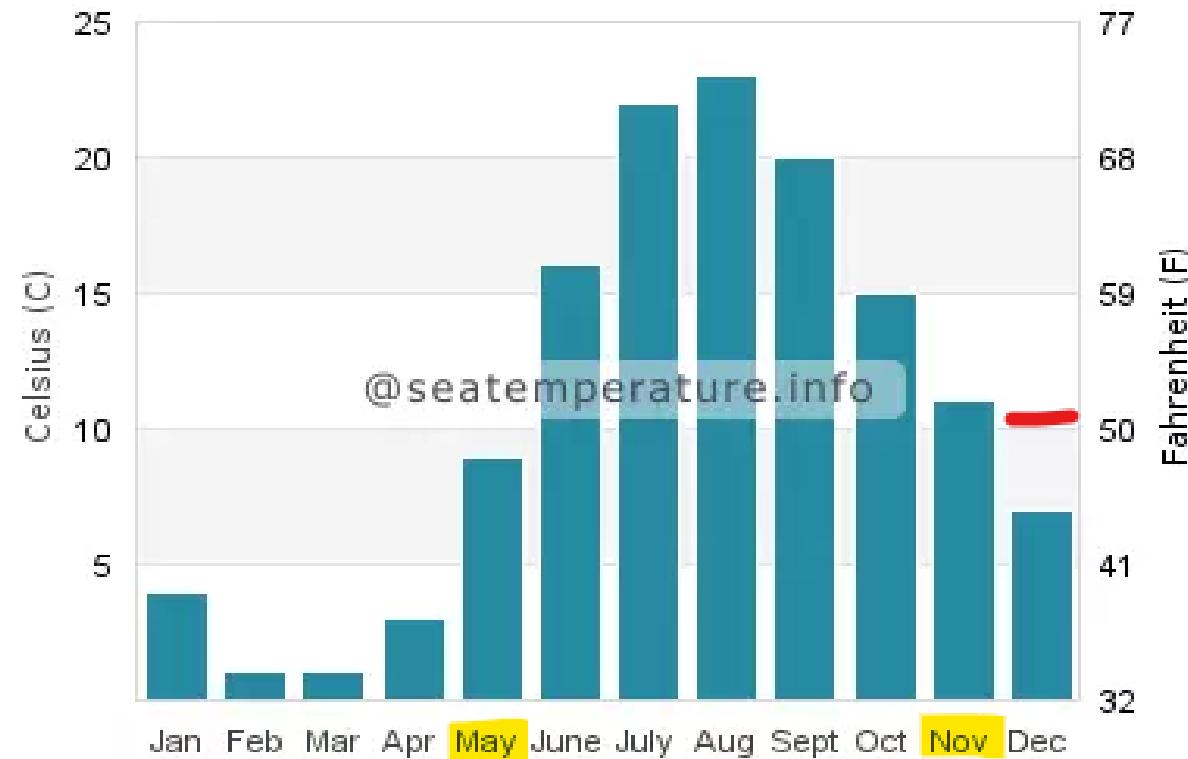
**Misconception of Hypothermia:** Many people believe they will die of hypothermia hours later, but most cold-water fatalities occur within the first few minutes due to drowning from cold shock or incapacitation, *before* severe hypothermia sets in.

## The 1-10-1 Principle:

- **1 Minute** to control breathing and avoid drowning from shock.
- **10 Minutes** of meaningful movement before “swim failure” occurs as muscles lose coordination
- **1 Hour** before severe hypothermia causes unconsciousness

**Water Doesn't Need to be Freezing:** Cold water shock is a significant danger in water temperatures below 70°F, and is particularly severe in water below 50°F.

Chart monthly average water temperature in Lake Champlain



<https://seatemperature.info/lake-champlain-water-temperature.html>

## 2. Effectiveness & Data

**High Fatality Rate Without Life Jackets:** Data indicates that approximately 75% to 87% of drowning victims in boating accidents were not wearing a life jacket. (USCG)

**Life Jackets Save Lives:** The U.S. Coast Guard estimates 80% of boating fatalities could be prevented if victims were wearing life jackets.

**Accessibility vs. Wear:** Simply having a life jacket on board is insufficient in cold water because the shock and muscle failure happen too quickly for a victim to find and don a jacket while in the water.

**Behavioral Impact:** Research indicates that mandatory legislation is the most effective way to affect behavior **change** among adults, who are otherwise unlikely to wear life jackets consistently.

### 3. Safety vs. Convenience

**False Sense of Security:** Warm air temperatures in spring or fall can mask dangerous water temperatures.

**Heavy Clothing Trap:** In cold weather, boaters wear heavy layers that become waterlogged, dragging even strong swimmers down, making a life jacket essential for buoyancy.

**Increased Danger for Paddlecraft:** Kayaks, canoes, and stand-up paddleboards have a higher risk of capsizing and require mandatory wear due to the high risk of falling in.

# 4. Policy & Practicality

**Existing Precedents:** Other northeast region states already have mandatory cold-weather wear periods (e.g., Nov 1 – May 1) for small vessels (*NASBLA Seasonal Wear Map*):



# Policy & Practicality...continued

**Proactive Protection:** These laws protect boaters during the most dangerous times of the year.

**Simplifying Compliance:** A mandatory wear law removes ambiguity, ensuring all passengers are protected rather than relying on quick decision-making during panic.

**Reduced Burden on Rescuers:** A life jacket increases visibility in the water, making rescue operations faster and safer for emergency personnel.

**Enforcement:** Although enforcement is not a primary goal, Vermont Game Wardens are often on the water or at boating access points and could conduct life jacket compliance verification during waterfowl hunting checks.

## 5. Success Story: Pennsylvania

Since 2012, Pennsylvania's mandatory cold water life jacket law has significantly improved boater safety by requiring life jackets on small boats, canoes, and kayaks from Nov. 1 to April 30. This regulation, targeting cold-water shock, has cut cold-weather boating fatalities by approximately 50%, with cold-weather death percentages dropping from 58% in 2012 to 17% recently. (PA Fish & Boat Commission)

<https://www.healthvermont.gov/sites/default/files/document/hsr-recreationalboating-2025.pdf>

**Expanding and Refining Recreational  
Boating Safety Data in Vermont  
2019-2023 Pilot Data Report**

September 2025

# VERMONT BOATING INJURY DATA PROJECT



# Other Boating Safety Information

## **Vermont Boating Statutes**

Title 23: Motor Vehicles, Chapter 29: Snowmobiles, Vessels & Water Sports, Subchapter 2: Vessels

<https://legislature.vermont.gov/statutes/chapter/23/029>

## **Vermont Use of Public Waters Rules**

<https://dec.vermont.gov/watershed/lakes-ponds/vermont-use-public-waters-rules>

## **Vermont State Police-Marine Unit**

<https://vsp.vermont.gov/divisions/fieldforce/recenforcement/marine>

## **Boating in Vermont (VT Fish & Wildlife)**

<https://vtfishandwildlife.com/fish/boating-in-vermont>

## **National Association of State Boating Law Administrators (NASBLA)**

<https://www.nasbla.org/home>

## **US Coast Guard Boating Safety**

<https://www.uscgboating.org/>