TRACKING LEGISLATIVE EFFORTS BY AN ANIMAL RIGHTS GROUP TO BAN LIVE BAIT

A primer on Upstream Policies' multi-state campaign to restrict fishing with live bait

American Sportfishing Association

LIVE BAIT POLICY BRIEF

2025

Executive Summary

- **Upstream Policies, an animal welfare organization founded in the UK, is working in various states to advance legislation and regulation to restrict the use and sale of live bait.**
- **While the group's underlying motivation is to end the use of *all* live bait in fishing due to animal welfare concerns, current efforts have focused on bans on the interstate sale and purchase of live baitfish as an indirect attempt to achieve their goal. The group deceptively claims these restrictions are necessary to prevent the unintended introduction of aquatic invasive species and pathogens.**
- **As of October 2025, Upstream Policies' efforts have targeted Colorado, Delaware, New Hampshire and New York, though the group is working to expand its campaign to other states. Each effort to enact a ban on live baitfish, to date, has been unsuccessful.**
- **The group has published multiple misleading, unscientific reports alleging to find pathogens in live bait, while downplaying the impact of significant restrictions on fishing participation.**

AMERICAN SPORTFISHING ASSOCIATION

BACKGROUND

From ice fishing with minnows to targeting bass with shiners, live bait has long been a popular choice for anglers across the country. However, the release of live bait and water from bait buckets can serve as a potential vector for the unintended introduction of aquatic invasive species and pathogens. To prevent these introductions, fisheries managers, regulators, lawmakers and industry have worked to verify biosecurity, monitor risks, license suppliers and conduct public outreach to ensure proper use, transport and disposal of live bait.

In many states, statutory and regulatory authorities enable state agencies to define permitted baitfish species and manage licensing and permitting for commercial bait producers and dealers. Additional regulatory controls may require the routine inspections of facilities and retail outlets, and traceback and reporting requirements for shipments. These existing regulations are designed to prevent high-risk species and unintended organisms from entering state waters, and to ensure that biosecurity standards are upheld. Many states have targeted protections in place – such as New York's certified baitfish requirements that test for specified diseases with proof-of-sale – that maintain opportunities for anglers fishing with live bait.

KEY STAT

Anglers spend $345 million annually on live baitfish

See more information on pages 10-11

As most freshwater baitfish sold in the US are produced in Arkansas, the state has worked with industry to develop a voluntary, fee-supported inspection and verification program. Certification requires semi-annual testing for diseases with independent testing oversight and APHIS-certified laboratories, on-site inspections and stringent biosecurity requirements. Interstate risk assessments have additionally studied potential risks, producing procedures that prevent unintended introductions while maintaining access to live baitfish.

States, federal agencies and other partners have additionally made sustained investments in public outreach programs regarding proper baitfish disposal practices. Campaigns like "Stop Aquatic Hitchhikers" explicitly communicate to anglers the importance of not releasing leftover bait and not moving live fish from one water body to another. States reinforce this messaging to encourage responsible, preventative disposal practices with signage, outreach through retailers and distinct AIS programs.

Still, risks remain in the live bait trade. A 2018 study, "Retail Baitfish in Michigan Harbor Serious Fish Viral Pathogens," identified the presence of viruses in 18 of 90 fish lots analyzed (20%), detecting fathead minnow nidovirus and golden shiner reovirus each in multiple species (Boonthai et al. 2018). Other recent studies using eDNA have similarly identified the eDNA presence of unintended and invasive species in bait and pond stores across the Great Lakes and Great Plains regions (Mulligan et al. 2023; Snyder et al. 2020). A 2024 study surveyed live bait shops in Texas and regional aquaculture facilities, highlighting the "need for close monitoring of the live bait industry in the state to prevent further introductions into inland waters" (Shepta et al. 2024). The Mississippi River Basin Panel on Aquatic Nuisance Species undertook the comprehensive "Live Aquatic Bait Pathway Analysis" in 2019, evaluating aquaculture production and transport, surveying state and federal regulations of the live aquatic bait industry, and evaluating risks for the introduction of various AIS through the pathway. The analysis concluded the "live aquatic bait industry and regulations in the MRB are extremely complex and pose a risk of moving AIS or pathogens quickly. At the same time, regulations are in place to minimize the risk to levels most management agencies appear to accept. There is a need to further investigate the risks identified in this report and be vigilant for new risks that may arise (Gunderson 2019).

While risks in the live bait trade have not been eliminated, the coordinated efforts of regulators, scientists and industry have sought to mitigate unintended introductions of AIS and aquatic pathogens. State fish and wildlife agencies lead the way by grounding management decisions in science, setting biosecurity standards, and tailoring regulations that both reduce the risk of introductions and maintain angler access to live bait. Continuing to work with the aquaculture industry on compliance and third-party verification, and through public outreach to ensure safe use, transport and disposal of live bait remains essential to safeguarding fisheries while ensuring anglers may continue fishing with live bait. Future regulations on the sale, use and disposal of live bait should only emerge from evidence-based fisheries management.

UPSTREAM POLICIES AND CHARITY ENTREPRENEURSHIP

In 2022, UK-based nonprofit Charity Entrepreneurship published a request for proposals, "Ban the Use of Live-bait Fish," outlining the animal rights organization's intent to establish a campaign advocating for bans on the use of live baitfish across states in the US. The funders considered and evaluated tactics and methods from the Campaign for the Abolition of Angling, a now-defunct British animal rights group, which also sought to ban the use, production and sale of all live bait.

67%

KEY STAT

67% of US anglers fish with live bait

The funders wrote, "bait fish are transported many times to wholesalers and retailers, and then are purchased by anglers who keep them in conditions of varying, but often low, quality before impaling them on their hooks. Considering that recent research implies that fish experience pain to a much greater degree than previously thought, this practice should now be considered abhorrent and archaic. This charity would be advocating for a ban on the use of live-bait fish…in states in the USA" (Bansal 2022). The funders additionally noted, that in past campaigns to ban live bait in Scotland, that "most ministers who voted in favor of the bill did so on biosecurity grounds, with only a few Green MPs considering the impacts on fish welfare," **setting the stage for the campaign's framing under the guise of invasive species**.

In 2023, Charity Entrepreneurship funded a campaign named Upstream Policies, to "[drive] responsible fishing practices by championing bait fish prohibition" (Seed Network 2023). Also operating as the Upstream Institute and Upstream Aquatic Institute, the organization launched the same year under the mission statement of: "Each year, billions of bait fish are used worldwide, often transported and kept under poor conditions. As those who value the richness and complexity of our waterways, we believe in fostering a culture of respect for all aquatic life." Upstream Policies has since amended its mission statement to "protect freshwater ecosystems from invasive species." As of October 2025, Upstream Policies' staff includes nonprofit professionals previously working in European alternative proteins organizations and tobacco control as well as a mechanical design engineer.

Legislation backed by Upstream Policies has primarily, though not exclusively, proposed restrictions on live baitfish used for freshwater fishing. Legislation introduced by the group in Delaware, New Hampshire and New York proposed to ban the interstate trade of baitfish, while a citizen's petition in Colorado proposed to ban the use of all live bait, though its supporting documentation focused largely addressed live baitfish. The rationale for group's focus on freshwater live baitfish, as opposed to saltwater baitfish and all live bait fishing, is not explicitly stated in "Ban the Use of Live-bait Fish." The group appears to consider baitfish aquaculture as a key "harm" alongside the harvest of baitfish and the actual use of baitfish, but likewise is concerned about "harms due to anglers shifting to using invertebrates as bait." Given the rationale stated in "Ban the Use of Live-bait Fish," while restricting the use of freshwater live baitfish remains the group's legislative priority, the group may additionally advocate for bans on all live bait, including bans on the use of live bait for saltwater fishing.

New Hampshire House Bill 720 – *(Introduced – Dead)*

HB 720 was introduced by Representatives Patrick Long (D) and Ellen Read (D), on January 9, 2025. The bill proposed to ban the interstate importation of all live bait fish into the state, regardless of species, origin, or location of production or harvest. Given the marginal amount of in-state wild harvest and production of baitfish, a ban on the interstate importation would have functionally restricted most access to and use of live baitfish. The bill received a hearing in the Fish and Game and Marine Resources Committee on February 12, and was unanimously voted down in a 15-0 vote.

The Fish and Game Department stated that the bill would "negatively impact the fishing experience for licensed anglers that fish in the State, in turn impacting the revenue to the Department from license sales." The American Sportfishing Association and National Aquaculture Association provided written testimony in opposition of the legislation. Multiple tackle shop owners additionally testified in-person at the hearing in opposition. A representative from Upstream Policies testified at the hearing in support of the legislation; several New Hampshire lake protective associations additionally joined the group's sign-on letter in support of the bill (New Hampshire House of Representatives 2025).

Currently, the Fish and Game Department maintains clear regulations on baitfish importation and sale. The Department maintains a list of fifteen acceptable species for use in the state's fresh waters, with daily limits on personal use, and restrictions on the release of any live fish or wildlife. Crucially, the Department also issues licenses for dozens of small tackle shops statewide to import hatchery-raised and wild-caught baitfish from out-of-state suppliers. These regulations have enabled New Hampshire to mitigate against potential introductions of invasive species or aquatic pathogens, while ensuring the live bait trade is licensed and transparent.

New York Assembly Bill 03330 – *(Introduced – Active)*

A03330 was introduced by Assemblymember Alex Bores (D) on January 27, 2025. The bill proposes to ban the interstate importation of live baitfish, and institute penalties for the importation of any live baitfish for the use of fishing in inland waters. The bill was referred to the Committee on Environmental Conservation; to date, a hearing has not been scheduled. The legislation is active as of October 1, 2025, and remains active for consideration in the 2026 legislative session.

Delaware House Bill 431 – *(Past Session – Enacted)*

HB 431 was introduced in March 2024 in an initial effort to ban the sale and import of all live bait. The bill's final iteration was proposed by the Vice Chair Sophie Phillips (D) of the state Natural Resources Committee in September 2024, and gave the Delaware Department of Natural Resources and Environmental Control (DNREC) the authority to regulate which species of live bait may be harvested, imported, transported, sold, or used in Delaware waters, consistent with other states' authorities. Like Colorado and New Hampshire, much of Delaware's supply of live baitfish is imported across state lines; bans on interstate sales of live baitfish would restrict most access to baitfish. The bill additionally gave DNREC the authority to prohibit or restrict importation or sale of live bait from other states.

HB 431 was heard in the House Natural Resources Committee in June 2024; A representative of Upstream Policies testified in support of the revised bill. The bill cosponsored by eight representatives, eight Democrats and one Republican. The bill was approved unanimously in both the state House and Senate in June 2024, and was signed into law in November of that year.

To date, DNREC has not proposed or finalized any regulations under this authority.

Colorado Citizen's Petition on Chapter W-1 - "Fishing" 2 CCR 406-1 – *(Filed – Dead)*

Upstream Policies filed a citizen's petition in March 2025 to ban the importation of all aquatic wildlife for use as bait. Upon filing the petition, Upstream Policies' petition included eight signatories including several fly fishing outfits and guides and riverkeeper organizations. Several of these organizations later requested to be removed from the petition.

The petition was considered in an August 2025 hearing. CPW issued a staff recommendation to deny the petition, which was initially included on the hearing's consent agenda. While several commissioners voted to pull the petition from the consent agenda, and several individuals and organizations testified in support of the petition, the Commission eventually voted to deny. It is expected that this group will again push for legislation or regulation to ban the interstate sale of live baitfish or all live bait.

The Colorado Parks and Wildlife Department maintains clear regulations on live bait importation, sale and use. Current law prohibits the importation of live wildlife into the state without a valid license and a health certificate from the source facility accompanying shipments in compliance with CPW regulations, which may additionally be subject to inspection protocols. Anglers purchasing live baitfish are required to purchase baitfish from a licensed dealer, and anglers are required to keep proof of purchase with them, ensuring transparency to mitigate aquatic invasive species risks throughout the supply chain. These targeted regulations have proven effective in mitigating the unintended introduction of aquatic invasive species, pathogens and parasites, while ensuring live bait remains accessible.

72%

KEY STAT

72% of surveyed Minnesota anglers reported using live bait

See more information on pages 10-11

Additionally, Colorado restricts live bait fishing west of the Continental Divide, or in waters above 7000 feet of elevation. Most live bait fishing is done on Colorado's Front Range, where most live baitfish sold in the state are imported from out-of-state producers. Like in other states where Upstream Policies has proposed similar legislation, bans on this trade would make live baitfish unavailable to most anglers.

Since the organization's founding in 2023, Upstream Policies has released several motivated reports in service of the organization's goal to ban the use of live baitfish in the US. A comprehensive analysis of Upstream Policies' reports, publications and testimony is available in the Appendix, page 10.

"Detection of Major Pathogens in Delaware's Live Bait Supply" (DeRooy and Hansen 2024a)

Published in 2024, the report from the Upstream Aquatic Institute claimed to identify positive detections of Viral Hemorrhagic Septicemia virus (VHSv) in baitfish from seven of nine stores sampled. This significant virus had previously not been identified in wild fish in Delaware.

In February 2025, the National Aquaculture Association (NAA) identified several major issues with the scientific integrity of the study. NAA questioned the study's methodology, stating that "there is not a universally recognized and validated real-time polymerase chain reaction assay for spring viremia carp virus at this time." NAA additionally stated that study results implied that koi herpes virus was found in tested species, despite the fact that these species are not known to be susceptible to the virus. NAA stated the need for a detailed examination of the procedures used to collect tissues, process samples, and run PCR assays to determine if lab issues could have played a factor. Several fisheries biologists have additionally echoed concerns with the veracity and transparency of the study.

Upstream Policies declined to provide key information, including identifying the laboratory used to run the PCR assays, or clarifying the procedures used to collect and process tissue samples. Additionally, Upstream Policies did not report or disclose their findings to USDA APHIS.

In spring 2025, Delaware Division of Fish and Wildlife staff conducted a baitfish study to test for the three pathogens - koi herpes virus, viral hemorrhagic septicemia virus, and spring viremia of carp virus - that Upstream Policies claimed to identify. Upon confirming all samples were negative for each of the three pathogens studied, the Department concluded that there is no known active infection in Delaware's bait supply at this time.

23.5

KEY STAT

23.5 million anglers used live bait for freshwater fishing in 2022

See more information on pages 10-11

"Untangling the impact of live baitfish restrictions on recreational fishing participation in the United States" (DeRooy and Hansen 2024b)

In a separate publication by this organization, published by *Frontiers in Conservation Science* in November 2024, Upstream Aquatic Institute alleges that restrictions on baitfish have no impact on fishing participation. The paper compares in-state license purchase rates to control groups of neighboring states before the institution of restrictions on baitfish in four states, conveniently concluding that restrictions have no impact on recreational fishing participation. However, the study compares heterogenous and poorly specified restrictions, uses poor measures of participation and employs significant interpretive overreach to draw broad conclusions. Additionally, the study uses a simple model without covariates to control for other factors including license price changes, macroeconomic trends and weather.

Upstream Policies referenced this report in its Colorado citizen's petition, and alludes to its alleged findings in its New Hampshire testimony. While no recent statewide data on live bait usage exists in either state, surveys from several states show significant shares of freshwater anglers fish with live bait, with nearly all fishing with live bait purchase this bait at tackle shops rather than harvesting their own bait locally.

"Citizen Petition - Proposed regulation to address risks of baitfish importation in Colorado" (Colorado Parks and Wildlife 2025)

In the group's citizen's petition to the Colorado Parks and Wildlife Commission, the group made several misleading, exaggerated and falsified claims, including several highlighted by Colorado Parks and Wildlife in their staff recommendation to deny the petition. CPW staff noted that the petition language requested a prohibition on the use of cultured baitfish, while proposed regulatory text requested a ban on the interstate importation of any aquatic wildlife.

Petition text additionally downplays the impact of the proposed rule, despite submitting survey evidence showing that nearly 1 in 5 Colorado anglers would fish less if they could not buy live baitfish. The petition claims that enforcement costs would be minimal, citing a decades-old study estimating the costs of an inspection on a single lake alone.

Much of the petition's supporting evidence relies on an online survey of 600 Colorado residents that expressed interest in fishing, which CPW notes is "over representative of anglers from major population centers." The group claims "low-income anglers tend to use worms and/or source their own bait. This means that low-income anglers are unlikely to experience any disproportionate effects of a baitfish ban," neglecting to acknowledge that under the petition's proposed rule, the importation of worms may similarly be prohibited.

Measure	Type of Fishing		
	All Fishing	*Freshwater*	*Saltwater*
2022 U.S. angler spending on bait (including live, cut and prepared baits)	$2,038,000,000	$1,513,000,000	$526,000,000
% of bait spending on live bait	64%	67%	55%
U.S. Annual Live Bait Spending Estimate	$1,297,000,000	$1,006,000,000	$291,000,000
% of live bait spending on live minnows, shiners or baitfish of any type	27%	27%	27%
U.S. Annual Baitfish Spending Estimate	$345,000,000	$267,000,000	$78,000,000

A significant share of anglers fish with live bait, driving substantial economic activity across the country. In 2022, US anglers spent just over $2.0 billion on live, cut and prepared bait according to results from the National Survey of Fishing, Hunting and Wildlife-Associated Recreation (U.S. Fish and Wildlife Service 2023). Based on anglers' days of participation in each type of fishing, it is estimated that about $1.5 billion of that spending was for bait used in freshwater, while around $526 million was for saltwater bait.

Results from Southwick Associates' proprietary Angler Monitor report (Southwick Associates 2024) indicate that approximately 67% of anglers' expenditure on freshwater bait is for live bait, while live bait accounts for 55% of angler spending on saltwater bait. Combining these proportions with participation estimates from the 2022 National Survey yields annual spending estimates of over $1.0 billion for freshwater live bait and $291 million for saltwater live bait.

Southwick Associates' Angler Monitor report also measures types of live bait purchased. Approximately 27% of anglers' spending on live bait was for baitfish, with this proportion remaining consistent across fresh and saltwater. Using this proportion with the estimates above, U.S. anglers spend approximately $267 million annually on baitfish used for freshwater fishing and $78 million on baitfish used for saltwater fishing.

Fishing with Live Bait – National Participation

Measure	Type of Fishing		
	All Fishing	*Freshwater*	*Saltwater*
2022 U.S. fishing participation	39,900,000	35,100,000	12,700,000
% of anglers that fished using live bait	67%	67%	67%
U.S. Participation in Live Bait Fishing Estimate	26,733,000	23,517,000	8,509,000

The 2022 USFWS national survey estimated that approximately 39.9 million anglers went recreational fishing in the U.S., with 35.1 million participating in freshwater fishing and 12.7 million participating in saltwater fishing. Information from Southwick Associates' Angler Monitor report indicates that 67% of U.S. anglers fish with live bait each year, and this proportion does not vary between fresh and saltwater anglers. Therefore, an estimated 26.7 million anglers go fishing with live bait each year, including 23.5 million freshwater anglers and 8.5 million saltwater anglers.

Fishing with Live Bait – State-level Participation

Several statewide angler surveys have asked freshwater anglers whether they purchase and use live bait and live baitfish. The table below shows the most recent statewide survey results on freshwater fishing with live bait.

State	Metric	Year(s)	Source
Maryland	**64%** of Maryland freshwater anglers, both resident and non-resident, used live bait	2012	Kilian JV, Klauda RJ, Widman S, et al. 2012. An assessment of a bait industry and angler behavior as a vector of invasive species. *Biological Invasions*. 14:1469–1481.
Minnesota	**72%** of surveyed anglers reported using live baitfish	2018–2019	McEachran MC, Mohr AH, Lindsay T, Fulton DC, Phelps NBD. 2022. Patterns of live baitfish use and release among recreational anglers in a regulated landscape. *North American Journal of Fisheries Management*. 42(2):295–306.
Oklahoma	**44%** of resident anglers used live bait "most often" vs artificials. Does not encompass whole share of live bait use	2014	Jager CA. 2015. 2014 Oklahoma angler survey. Oklahoma Department of Wildlife Conservation; p. 19.
Vermont	**52%** and **65%** of resident anglers purchase or harvest baitfish, varying across region	2020	Duda MD, et al. 2020. 2020 Vermont angler survey report. Vermont Fish and Wildlife Department; p. 109.
Virginia	**56.1%** of anglers used live bait while freshwater fishing	2022–2023	White MG. 2023. Results of the 2022–2023 Virginia angler survey. Virginia Department of Wildlife Resources; p. 12.

CONCLUSION

Animal rights organization Upstream Policies was formed in 2023 to ban the use and sale of live baitfish in various US states. Current legislative and regulatory efforts in Colorado, Delaware, New Hampshire and New York have proposed banning the interstate sale and purchase of live bait as an indirect way to achieve this goal, claiming such legislation is necessary to limit the spread of invasive species. As of October 1, 2025, this group has not succeeded in passing a ban on the interstate sale of live baitfish, though legislation in New York remains active through the 2026 legislative session. Upstream Policies has published misleading reports and exaggerated claims to justify these restrictions and downplay the impacts of bans on recreational fishing participation.

Currently, state agencies and lawmakers enforce varying licensing requirements, inspection protocols and other biosecurity measures to mitigate the risks of the introduction of AIS or pathogens through the live bait trade, as well as public outreach campaigns encouraging the safe transport and disposal of live bait. Legislatively driven bans pushed by advocacy groups would undermine fishing participation, local businesses, and the scientific management of state fisheries. Going forward, evidence-based management - not unsubstantiated international animal-rights campaigns - must remain the foundation for balancing conservation safeguards with angler access to live bait. ASA, the recreational fishing industry and angling community stand ready to work with agencies on education and certification measures that reduce AIS risks while maintaining access for the millions of anglers who annually fish in freshwater with live baitfish.

SPORTFISHING COMMUNITY PARTNERS

American Sportfishing Association

International Game Fish Association

Bass Anglers Sportsmen Society (B.A.S.S.)

Major League Fishing

Center for Sportfishing Policy

Marine Retailers Association of the Americas

Congressional Sportsmen's Foundation

National Professional Anglers Association

Guy Harvey Foundation

Wildlife Forever

REFUTATIONS OF UPSTREAM POLICIES' REPORTS AND CLAIMS

Since the organization's founding in 2023, Upstream Policies has released several motivated reports in service of the organization's goal to ban the use of live baitfish in the US.

"Detection of Major Pathogens in Delaware's Live Bait Supply" (DeRooy and Hansen 2024a)

Published in 2024, the report from the Upstream Aquatic Institute claimed to identify positive detections of Viral Hemorrhagic Septicemia virus (VHSv) in baitfish from seven of nine stores sampled. This significant virus had previously not been identified in wild fish in Delaware.

In February 2025, the National Aquaculture Association (NAA) identified several major issues with the scientific integrity of the study. Per NAA:

1. "The number of positive fish identified in this study (based on a sample size of 10 fish per shop) for three viral pathogens (viral hemorrhagic septicemia virus, spring viremia of carp virus and koi herpes virus) would indicate a high prevalence of these pathogens in source populations. While these three pathogens are known to occur in the U.S. in susceptible species, this level of infection in wild populations is not supported by current evidence.
2. "There is not a universally recognized and validated real time polymerase chain reaction assay for spring viremia carp virus at this time.
3. "The pilot study implies koi herpes virus was found in the species tested – all of which are not previously known to be susceptible to koi herpes virus and no other scientific evidence is known to support these claims.
4. "Testing of susceptible farmed fish for viral hemorrhagic septicemia began in 2008. The pathogen has not been found in U.S. farmed fish nor have U.S. farms experienced losses due to the pathogen.
5. "Without knowing more about the sources of baitfish or the retailer biosecurity practices – it is impossible to know what the real epidemiology is of these detections if they are in fact correct.
6. "The detailed procedures used to collect tissue, process samples, and run the polymerase chain reaction (PCR) assays must be examined to determine if laboratory-related issues were a factor in the findings" (Belle 2025).

Several fisheries biologists have additionally echoed concerns with the veracity and transparency of the study. Upstream Policies declined to provide key information, including identifying the laboratory used to run the PCR assays, or clarifying the procedures used to collect and process tissue samples. Additionally, Upstream Policies did not report or disclose their findings to USDA's Animal and Plant Health Inspection Service (APHIS). Reporting and confirming the findings of these notifiable diseases is a legal and scientific safeguard; by failing to notify APHIS, Upstream Policies bypasses critical protocols, potentially increasing the risk of uncontrolled spread and undermining the study's credibility.

While alleged findings from this report were referenced in the group's testimony on New Hampshire HB 720, no references were made to the report in the Colorado citizen's petition filed in March 2025 . As of October 1, 2025, Upstream Policies website did not include any links or references to the "Detection of Major Pathogens in Delaware's Live Bait Supply" report.

In spring 2025, Delaware Division of Fish and Wildlife staff conducted a baitfish study to test for the three pathogens - koi herpes virus, viral hemorrhagic septicemia virus, and spring viremia of carp virus that Upstream Policies claimed to identify. Collecting 30 fish from each of five bait shops and one wild-caught sample, the samples were collected, euthanized and tested following strict American Fisheries Society – Fish Health Section standards, publishing methodology and making lab results available upon request. Upon confirming all samples were negative for each of the three pathogens studied, the Department concluded that there is no known active infection in Delaware's bait supply at this time.

Citing the Upstream study, the Maryland Department of Natural Resources is undertaking a similar study to test bait fish purchased in-store for the occurrence of VHSv. Maryland will also test 30 fish per store and two species per store for the presence of VHSv, with purchases and samples beginning in the spring of 2026 for a report anticipated to be published by September 2026.

"Untangling the impact of live baitfish restrictions on recreational fishing participation in the United States" (DeRooy and Hansen 2024b)

In a separate publication by this organization, published by *Frontiers in Conservation Science* in November 2024, Upstream Aquatic Institute alleges that restrictions on baitfish have no impact on fishing participation. The study, aimed specifically at the concerns raised by policymakers, anglers and the fishing industry, uses dubious methodology and exaggeration to make sweeping generalizations about the impacts of their legislative initiatives.

The paper compares in-state license purchase rates to control groups of neighboring states before the institution of restrictions on baitfish in four states, conveniently concluding that restrictions have no impact on recreational fishing participation. ASA has identified the following glaring issues with this report:

1. Heterogeneous and poorly specified restrictions: the four states studied implemented different restrictions (bans on movement of live baitfish in Colorado; restrictions on live bait use in Northern Maine), but the paper collapses these into a uniform "treatment." This oversimplification undermines comparability.
2. Participation is poorly-defined: by focusing solely on license counts, the study ignores more sensitive indicators like days fished or angler spending, which may reveal shifts in behavior that license purchases cannot capture, including lowered effort due to the unavailability of preferred bait. These measures are common in economic or social evaluations of fisheries policy and participation.
3. Interpretive overreach: The conclusion that "live baitfish restrictions have no detectable impact on the public's engagement in recreational fishing" draws a recklessly broad

interpretation from an underlying design examining the effect of targeted changes on overall annual license totals. Under three of the four restrictions examples considered, anglers purchasing baitfish at stores were unaffected. In the fourth example (Maine), targeted geographic restrictions did not affect most fishing trips. In all examples, regulatory changes affected a marginal share of anglers fishing with live bait; to conclude that these changes support the blanket claim that "baitfish restrictions do not cause a decline in the public's participation" is irresponsible.

4. Sampling ambiguity: Many states restrict the movement, harvest or use of baitfish. The authors provide no justification for their sampling of the four states listed in the study. Several other states adopted restrictions on live bait movement during the period studied (Wisconsin, Illinois, Pennsylvania). States with more significant restrictions on use and interstate sale (Oregon, Idaho, Minnesota) are not considered in this report.
5. No covariates to control for other drivers of license sales: The study uses a simple BACIPS model without incorporating factors like license price changes, unemployment, weather changes that are well-documented to affect license purchases. This omission leaves the analysis vulnerable to omitted-variable bias.
6. Weak control group construction: The authors omit states with earlier or partial restrictions, reducing already small and undefined control pools and potentially biasing results.

Upstream Policies referenced this report in its Colorado citizen's petition, and alludes to its alleged findings in its New Hampshire testimony. While no recent statewide data on live bait usage in New Hampshire exists, data from Vermont suggests between 52% and 65% of anglers use live baitfish and thus would be impacted by this restriction (Duda 2020). Additional Vermont survey data finds that almost all anglers fishing with live bait purchase this bait at tackle shops rather than harvesting their own bait locally.

"Citizen Petition - Proposed regulation to address risks of baitfish importation in Colorado" (Colorado Parks and Wildlife 2025)

In the group's citizen's petition to the Colorado Parks and Wildlife Commission, the group made several misleading, exaggerated and falsified claims, including several highlighted by Colorado Parks and Wildlife in their staff recommendation to deny the petition. The CPW analysis highlights the following issues:

1. The citizens' petition, in many places, requests to prohibit the importation of live baitfish, in others live bait; in other sections of the petition they request a prohibition on the use of all cultured baitfish. However, in the proposed rule the petitioners request the Commission adopt, language would prohibit the importation of "*any aquatic wildlife for sale or use as bait.*" Much of the supporting rationale and survey data provided by the petitioners discuss the considerations associated with a ban on baitfish, clearly distinguishing it from worms and other forms of live bait.
2. Colorado Parks and Wildlife disputes Upstream Policies claim that 27 species have been introduced by the bait trade, stating "there are no confirmed examples of these organisms being introduced to Colorado waters by the bait trade" (Colorado Parks and Wildlife 2025).

The staff recommendation additionally notes that "banning all importation of live aquatic wildlife for use as bait would significantly impact at least some stakeholders." ASA, as well as several small business owners in Colorado, contacted the Commission to highlight impacts on stakeholders. As CPW notes, the "Petitioners downplay the impact of their proposed rule," but still highlight in their survey that nearly 1 in 5 Colorado anglers would fish less if they could not buy live baitfish.

Several other misleading claims are included in the report, including that "a baitfish import ban is very cheap. We cannot know the costs of enforcement with certainty, but similar prevention programmes [sic] in other American lake and river systems (e.g. boat inspections) tend to cost close to 30,000 USD per year," citing a 2007 study estimating the costs of an inspection and boat washing program on New York's Otsego Lake alone (Horvath 2008). The program in question is not only confined to a single lake, but entails an entirely dissimilar scope of work. Despite many references in the petition to importation bans in Minnesota and Montana, the petitioners do not seek to estimate enforcement costs of importation regulations in these states, using misleading, outdated information to downplay implementation costs.

Much of the petition's supporting evidence relies on an online survey of 600 Colorado residents that expressed interest in fishing, which CPW notes is "over representative of anglers from major population centers" (CPW 2025). The group claims that "live baitfish appears to be a luxury item, most frequently purchased and used by anglers with disposable income." Supporting evidence appears to be that "11.1 percent of low-income respondents reported purchasing live baitfish," drawing the lowest of nine income brackets surveyed, compared to 13.7 percent of the average of the other eight brackets. The petitioners rely on an unrepresentative, small online sample size to make generalizations about impacts across income levels, using arbitrary income brackets, and marginal percentage differences to draw broad conclusions. Similarly, the group claims "low-income anglers tend to use worms and/or source their own bait. This means that low-income anglers are unlikely to experience any disproportionate effects of a baitfish ban," neglecting to acknowledge that under the petition's proposed rule, the importation of worms may similarly be prohibited. The petition similarly dismisses impacts on tackle shops, stating "bait and tackle shop owners derive almost all of their revenue (96 percent) from sources other than live bait." With live bait fishing limited to Colorado's Front Range, and in particular, several lakes, the petition dismissed the concentrated impacts its proposed restrictions would have on tackle shops in this area.

Other Claims

Upstream Polices has made other false, misleading or uncited claims, including:

- "[A] survey recently conducted of 250 anglers in New Hampshire found that 70% of anglers support an import ban on live baitfish." (New Hampshire House Fish and Game and Marine Resources 2025)
    - Survey results referenced in Upstream Policies' testimony in the New Hampshire House Fish and Game and Marine Resources Committee meeting in February 2025 have not been attributed to any source.

- "Minnesota…has not experienced a supply-demand problem. They haven't experienced it; we've interviewed a range of natural resource departments across the country. In general, this hasn't come up as an issue." (NH House Fish and Game and Marine Resources 2025).
  - The claim that Minnesota has not experienced any supply issues was made just twelve months after the Minnesota Department of Natural Resources published "Ensuring a Viable Minnesota Grown Bait Supply," as mandated by 2023 legislation. The report states, "because most Minnesota bait is wild caught, bait supplies vary annually.… As a result of increasing demand and variable harvests, there have been reports of seasonal minnow shortages in Minnesota for the past several years." (Minnesota DNR 2024).
  - The claim that live bait supply concerns have not "come up an issue" is either willfully misleading or suggests the group did not interview Minnesota DNR.
- "Considering that recent research implies that fish experience pain to a much greater degree than previously thought, this practice [of producing, transporting and using live bait] should now be considered abhorrent and archaic." (Bansal 2022).
  - The white paper does not directly attribute a source for its claim, but includes in its references Open Philanthropy's "2017 Report Consciousness and Moral Patienthood." The report states, "in short, I think mammals, birds, and fishes, are more likely than not to be conscious, while (e.g.) insects are unlikely to be conscious. However, my probabilities are very "made-up" and difficult to justify, and it's not clear to us what actions should be taken on the basis of such made-up probabilities" (Muehlhauser 2017).
  - Charity Entrepreneurship's claim that "recent research implies that fish experience pain to a much greater degree than previously thought" is contradicted by a 2023 paper, "Reasons to be Skeptical about Sentience and Pain in Fishes and Aquatic Invertebrates." The literature review describes changing definitions of "pain," testing of unfalsifiable hypotheses and a lack of reliable empirical evidence in fish and invertebrate welfare literature.

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