New York Aquaculture Producer Survey Results for 2024

Sea Grant
NEW YORK

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Albino brook trout swimming in a tank, a handful of clam, and sugar kelp growing on rope.

Aquaculture Producer Survey Results

Summary of the Survey Results

The State of New York has a diverse and growing aquaculture industry which produces shellfish, seaweed, and finfish. In the Great Lakes region, there are numerous land-based finfish operations producing fish for restocking public waterways as well as human consumption. The marine region around Long Island is primarily where shellfish and sugar kelp (i.e., seaweed) are produced. A couple of operations in the Great Lakes region produce freshwater mussels for habitat restoration purposes. Aquaponic operations also exist around the state raising fish in conjunction with terrestrial plants. The aquaculture industry in New York supports a large recreational fishing industry by restocking public waterways, it enhances natural populations of shellfish in local embayments which improves ecosystems, and it also provides a local and sustainable source of seafood that can increase food security and support local economies.

To better assess the aquaculture industry across the state, New York Sea Grant (NYSG) developed an annual survey to collect information from the industry. The ten-question survey sought to better understand the georgraphic distribution of industry operations, their production levels, species produced, types of gear used, and the number of jobs it supported. This voluntary and anonymous survey was distributed in January of 2025 to collect information from the previous calendar year. It was sent to 100 known aquaculture operations from all sectors: private, not-for-profit (e.g., Universities, Indigenous Nations, etc.) and governmental (i.e., federal, state, or local municipality) and 48 responses were received. While the results in this report do not represent the industry entirely, but only those respondents, it helps provide insights into statewide aquaculture activities. The goal of this survey is to be distributed annually so the growth and changes of the industry can be measured over time. This annual report will be publicly available and housed on the NYSG website. It will also be used to increase awareness and educate the public about New York's aquaculture industry.

Some key finds based on the survey responses include:

- Respondents were from all but one region of the state. The most were in the Long Island region (23) and the next highest were in the Finger Lakes region (9).
- There are at least 10 operations over 75 years old. They are run by NY State and focus on stocking and restoration. The private sector, which represented 48% of responses, is relatively new with most operating for 10 years or less.
- Among respondents 46% are producing seafood for consumption while 67% are producing for stocking purposes or restoration.
- 58% of responses (18) acquire their seed from out-of-state hatcheries but 72% of those responses (13) said they get seed from both in-state *and* out-of-state hatcheries.
- A total of 344 jobs were supported by responders with 221 being full-time positions.
- Survey responders sold 2.8 million pieces of legal-size shellfish and raised about 849,000 pounds of finfish in 2024.
- The top two farmed species among respondents were oyster and trout.

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Key Terms and Definitions

Aquaponic Plants - plants raised in water circulating from tanks that finfish are raised in. This includes consumable produce (e.g., lettuce), cannabis, or decorative plants.

Consumption - to be eaten as a food source by people.

Grow-out Operation - a farm that gets seed from a hatchery and raises it to legal or market size.

Hatchery - a facility that spawns adult animals to produce juvenile shellfish or finfish, or produces spools of string set with seaweed spores. A hatchery can also be a grow-out operation.

Restoration - the act of adding finfish or shellfish to a habitat to increase natural populations which may get harvested by recreational fishing activities.

Seaweed - refers to various species of macroalgae. Only sugar kelp is currently raised in New York.

Seed - a general term for the juvenile stage of various organisms produced in a hatchery by spawning adults. Seed is raised at a grow-out operation until it reaches market size.

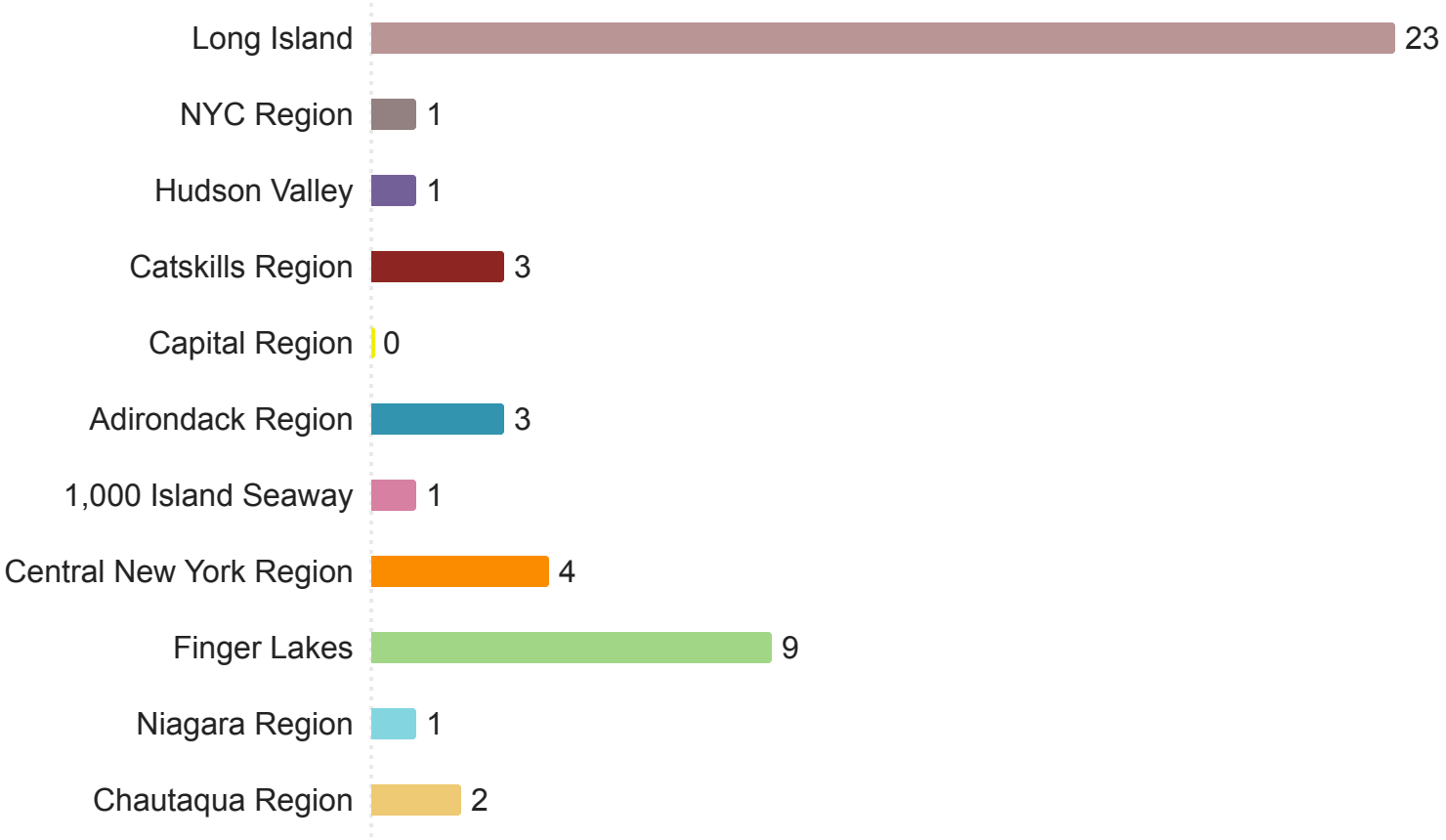
- ***Shellfish seed:*** animals <1 year old, typically between 1 and 38mm (1.5”) in shell length.
- ***Seaweed seed:*** a spool of string that has had seaweed spores set on the string.
- ***Finfish seed:*** includes eggs, fry (juveniles without a yolk-sac), or fingerlings (juveniles about the size of human finger with scales and working fins).

Shellfish - refers to the typical species produced in New York. This currently includes the eastern oyster (*C. virginica*), hard clam (*M. mercenaria*), bay scallop (*A. irradians*), ribbed mussel (*G. demissa*), and freshwater mussels (Unionid family).

Distribution of Aquaculture Operations in New York

Survey for participants selected the region where they are located using the map below.

48 Responses



Business Classification of Operations

The industry is comprised of 3 different categories based on their funding sources.

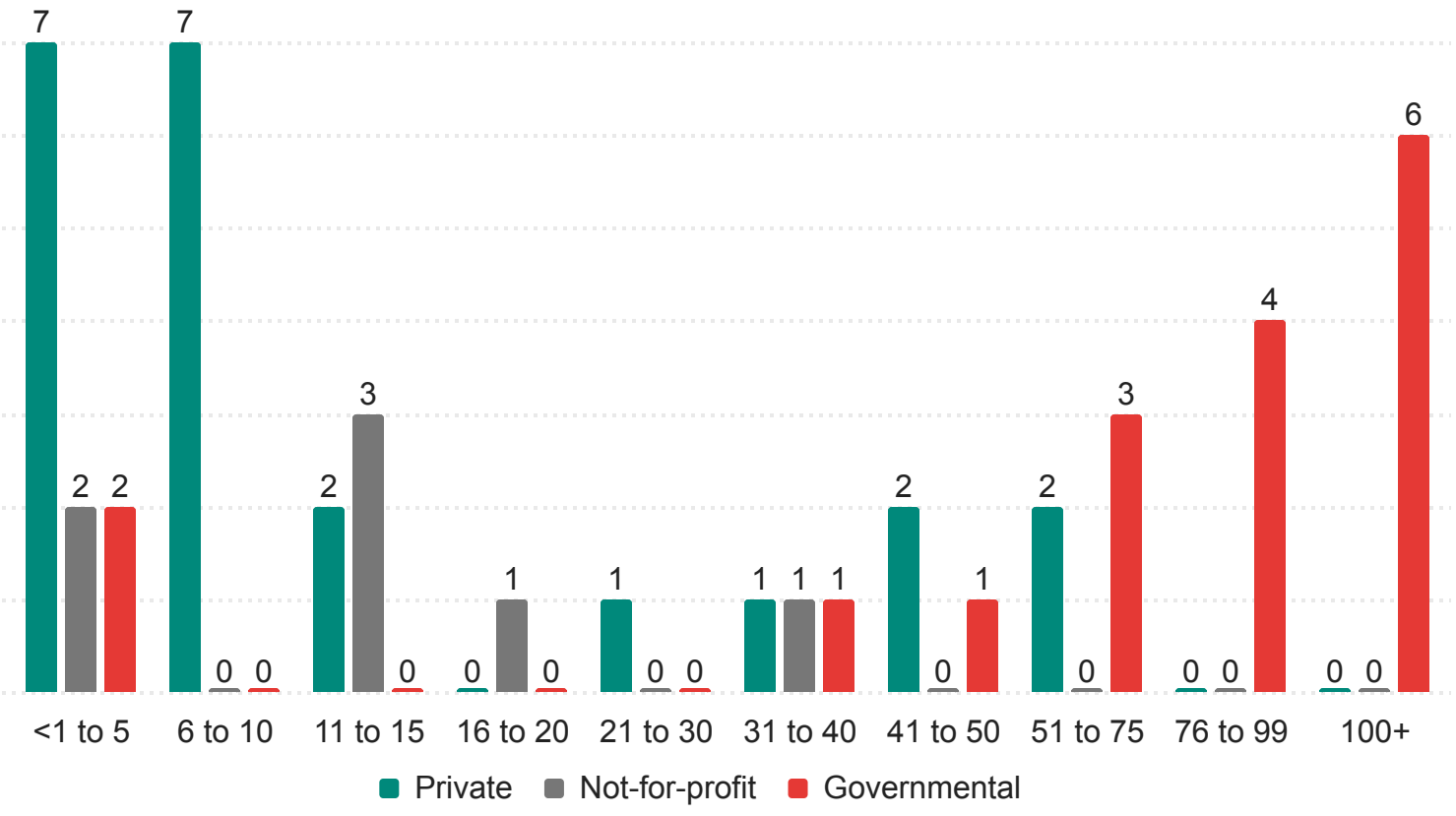
48 Responses

Private: Operation owned by an individual or group that does not receive tax payer funding.
Not-for-profit: Has 501(c)(3) status. Includes Colleges/Universities and Indigenous Nations.
Governmental: Receives federal, state, or local funding (e.g., NYSDEC and Town Hatcheries).

Age of New York Aquaculture Operations

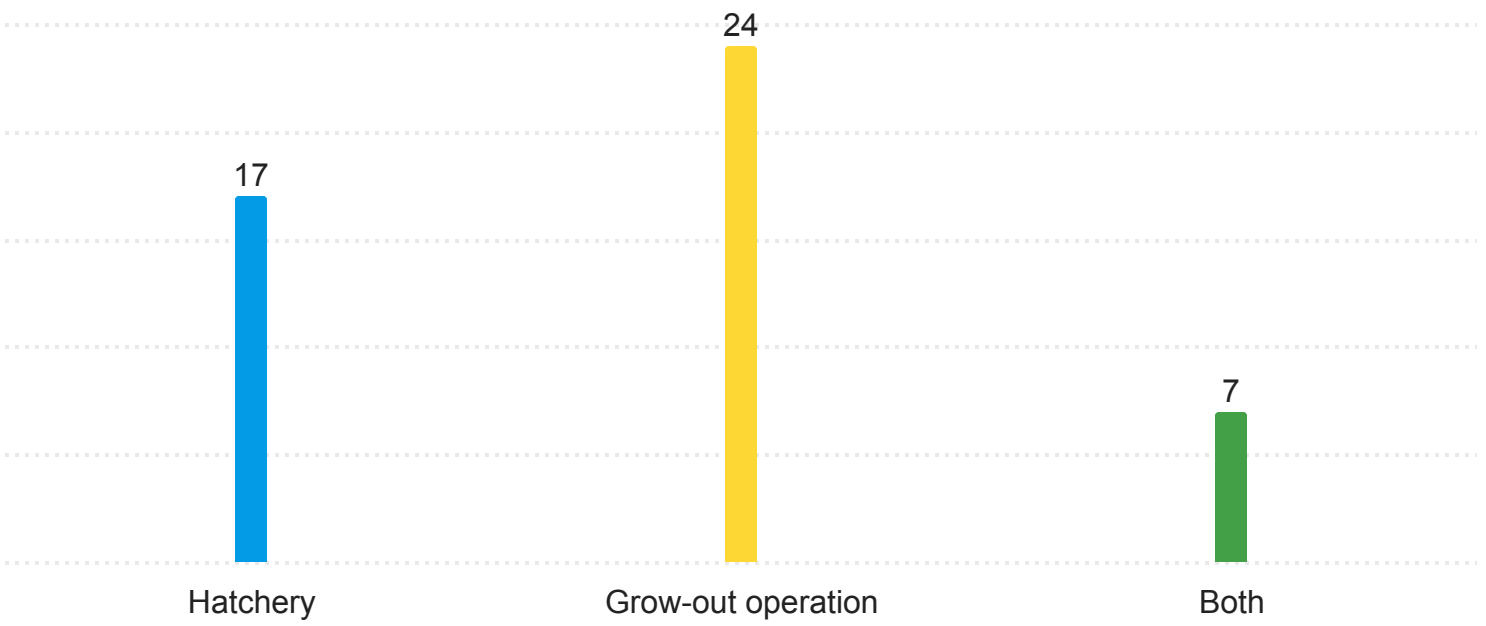
The below graphs show the range in years that each sector's operations have been open.

46 Responses



Number of Hatchery and Grow-out Operations

48 Responses

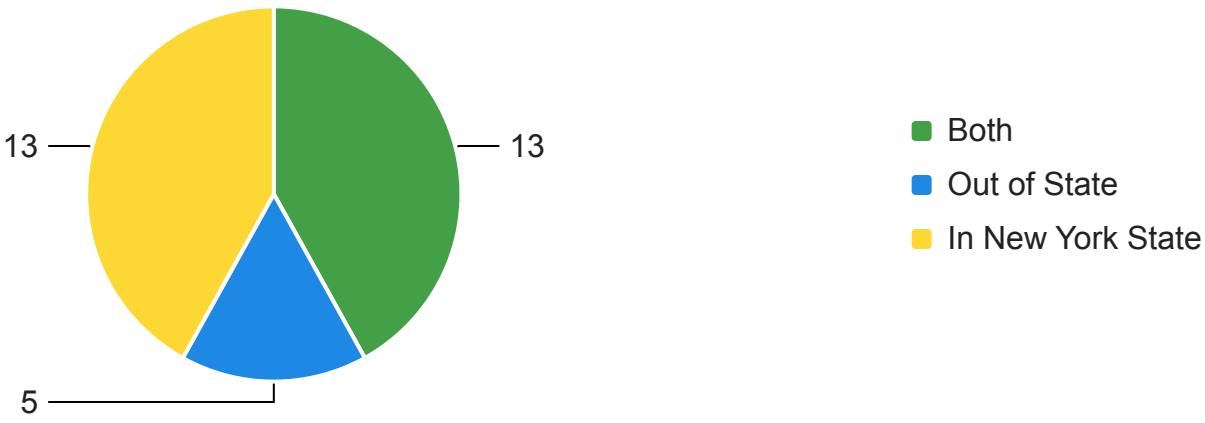


Hatchery Operation: Produces shellfish and finfish by conditioning and spawning adults.
Grow-out Operation: Acquires seed/eggs/fingerlings from a and raises them on their farm.
Both: May spawn some species but also acquire seed from other hatcheries.

Source of Seed

Grow-out operations were asked where the hatchery they get their seed from is located.

31 Responses

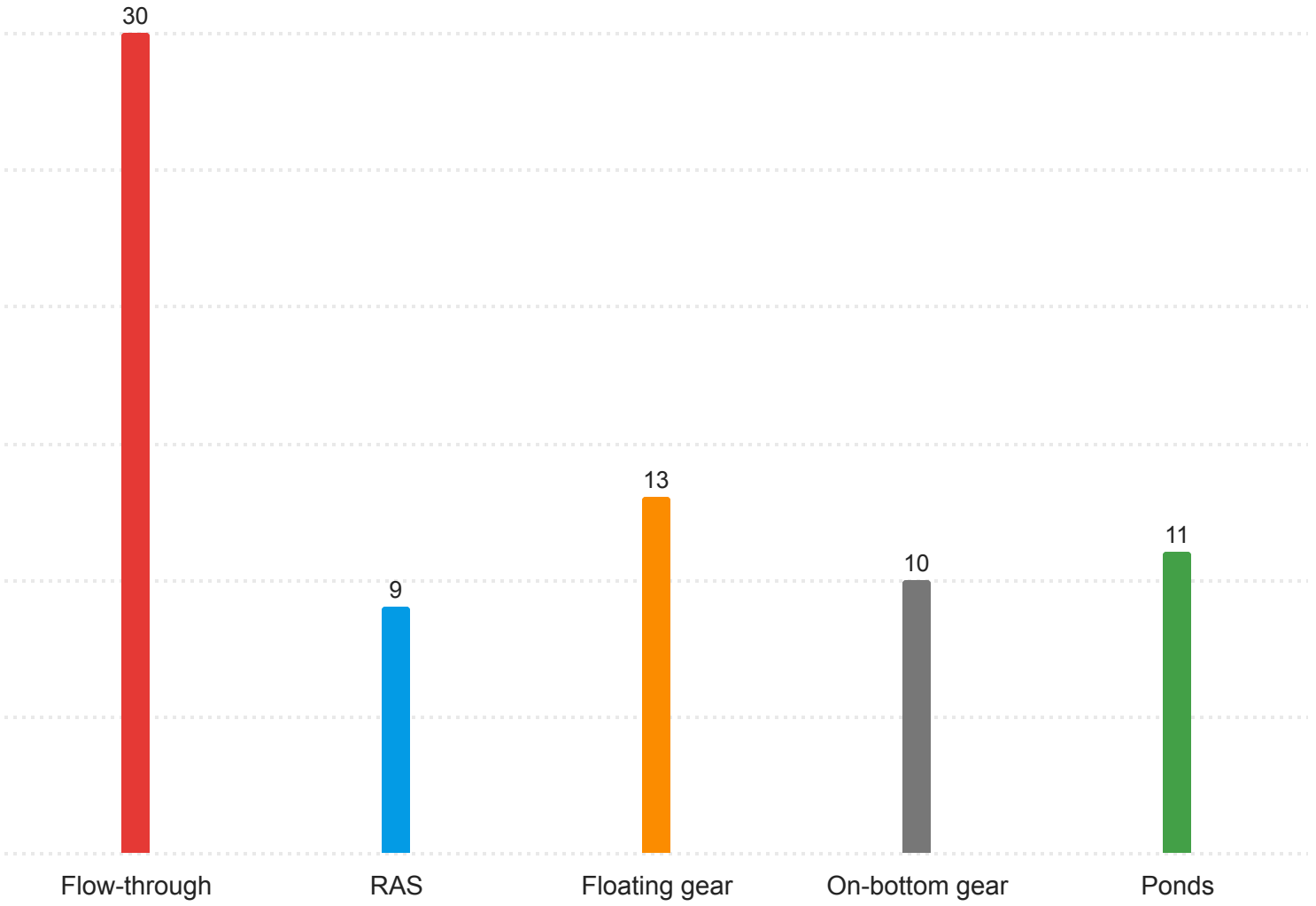


Seed includes juvenile shellfish, finfish (eggs, fry, or fingerlings), and/or seaweed spools produced in a hatchery and then sold to grow-out operations.

Aquaculture Production Systems

This graph shows the various types of systems that are used and by how many operations.

48 Responses



***Operations may use multiple systems ***
(i.e., shellfish: floating & bottom gear, finfish: ponds & flow-through)

Flow-through: Systems that draw water from a source (marine, river, or groundwater) and distribute it around the facility before discharging it. Typical in shellfish hatcheries and finfish operations.

RAS: Recirculating aquaculture systems are newer technology that reuse the water by filtering it over and over with minimal discharge. Common in finfish and aquaponic operations.

Ponds: Often man-made; shallow and can be drained for harvest and maintenance.

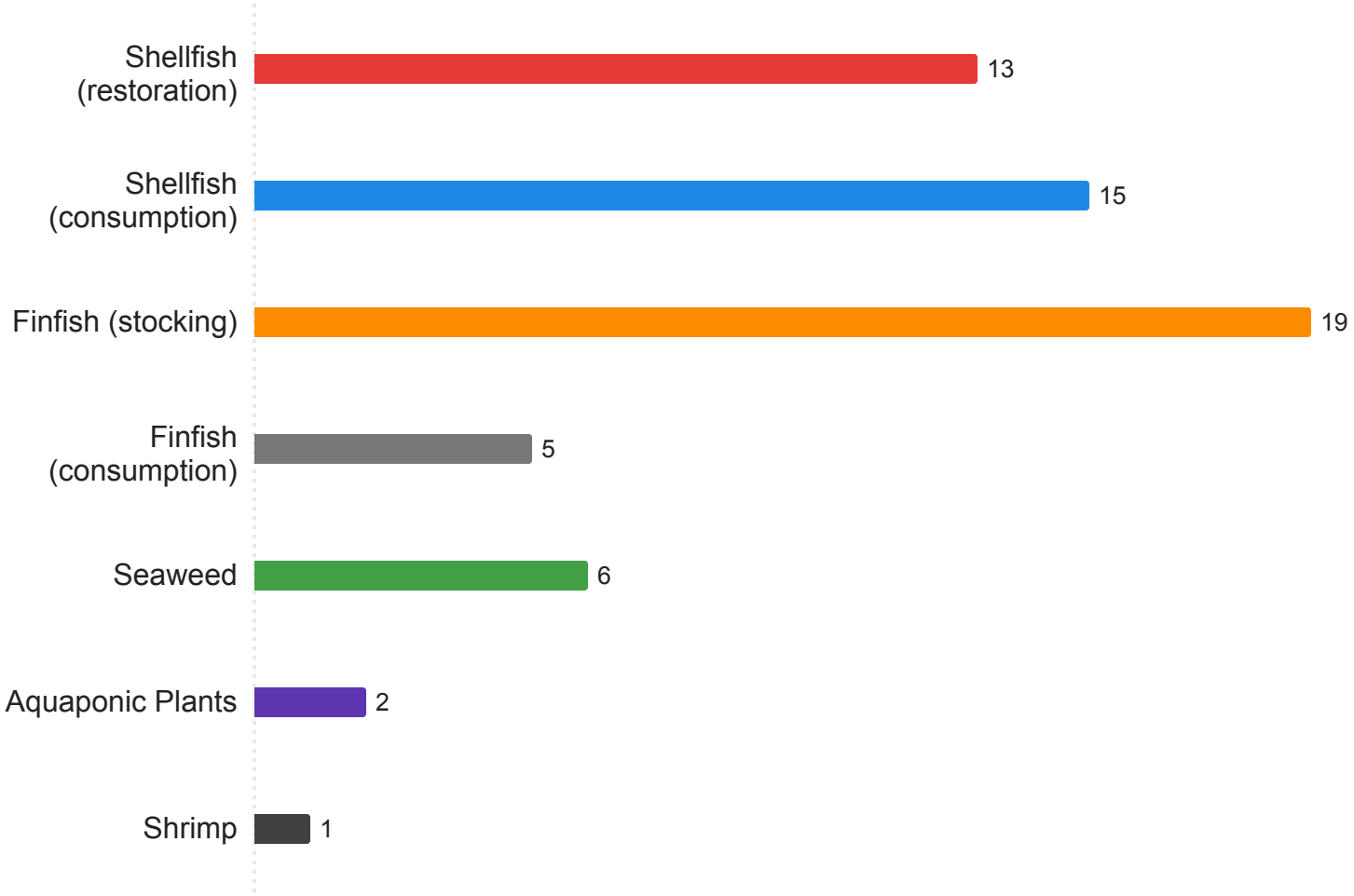
Floating gear: Floating systems (e.g., cages, docks, lines) for raising shellfish and/or seaweed.

On-bottom gear: Shellfish cages that sit on the bay bottom and are hauled up by the farmer.

Aquaculture Product Categories

The below graph shows the general product distinction that exists in New York. Shellfish and finfish can be produced for restoration and/or consumption.

48 Responses



Operations may produce for multiple categories (i.e., for restoration AND consumption).

Shellfish for restoration: Includes hard clam, oyster (single set & spat on shell), bay scallop, ribbed mussel, and freshwater mussels (Unionids).

Shellfish for consumption: Primarily oyster but may include hard clam and bay scallops.

Finfish for stocking: Various species for stocking public and private waterbodies.

Finfish for consumption: Various species of fish raised as a food product for people.

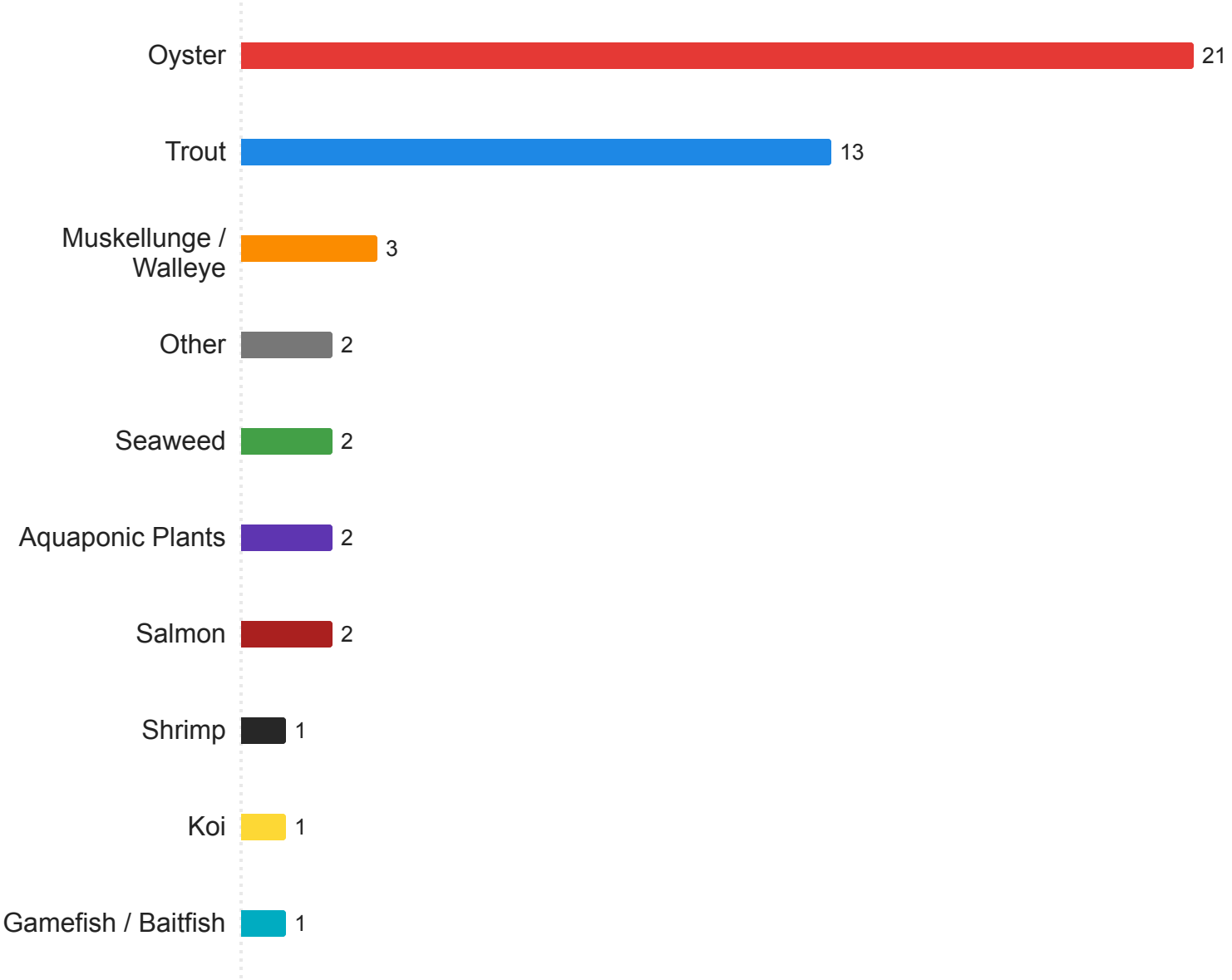
Seaweed: Primarily sugar kelp. Includes hatchery production of seed spools sold to growers.

Aquaponic Plants: Consumable produce (e.g., lettuce), cannabis, and/or landscaping plants.

Shrimp: Typically the Pacific White Shrimp for consumption purposes.

Top Species Produced

48 Responses



Many operations produce multiple species but this shows which species they produced the most of or which had the most value. Often this is the same species but some operations may produce larger quantities of smaller species with lower values than other species they also produce.

Trout Species: Such as Brook, Tiger, Brown, Steelhead, and Rainbow.
Other includes: Freshwater mussels (Unionids) and Bloater.
Seaweed: Currently only sugar kelp.
Salmon Species: Such as Atlantic, Chinook, and Coho.
Aquaponic Plants: Consumable produce (e.g., lettuce), cannabis, and/or landscaping plants.
Gamefish / Baitfish: Such as Perch, Bluegill, Crappie, Minnows, Shiners, etc.

Categories not selected: clam, tilapia, bass, and aquarium species.

Number of Jobs Supported

46 Responses

Full Time: >30 hours per week for >4 months per year.

Part-time & Seasonal: Employed <4 months per year.

Total Production

Operations provided an estimate of their total production. The highest amount reported by an operation is listed, along with the average amount reported, the number of responses, and the total sum reported. Operations could report values under multiple categories.

Shrimp production levels are not recorded since only one operation currently exists.

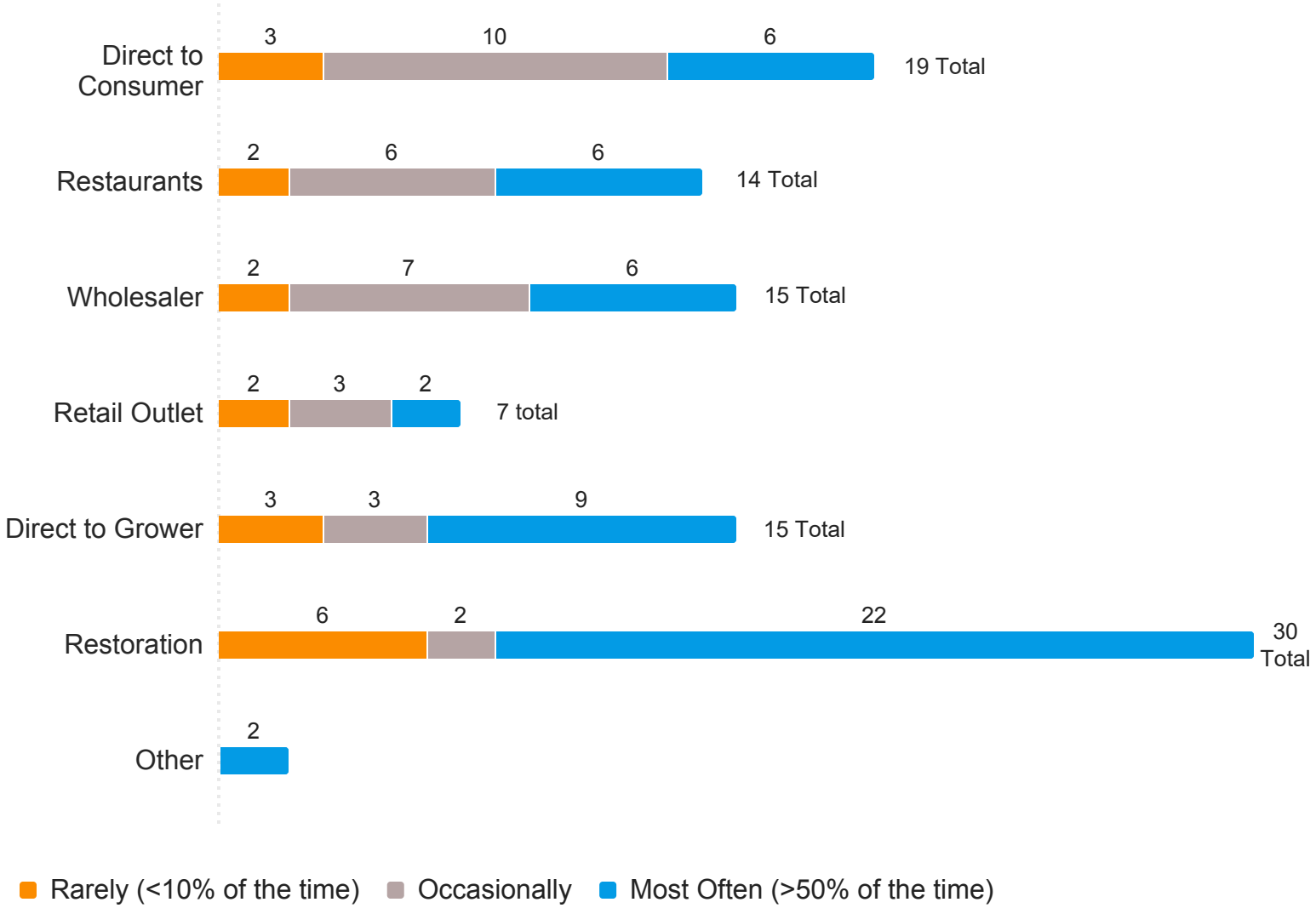
Operation Type	Maximum	Average	Responses	Sum
Shellfish Hatchery (seed)	24,080,000	8,132,658	11	89,459,242
Shellfish Farmers (pieces)	624,000	235,101	12	2,821,210
Finfish Hatchery (seed)	240,000,000	40,592,262	12	487,107,149
Finfish Farms (pounds)	150,456	65,289	13	848,753
Seaweed Nursery (spools)	60	36	3	108
Seaweed Farmers (pounds)	10,000	5,033	3	15,100
Aquaponic Plants (pounds)	100	75	2	150

Shellfish Hatchery: Number of seed produced for restoration and/or sold to growers.
Shellfish Farmers: Number of legal size pieces of shellfish sold for consumption (typically) purposes.
Finfish Hatchery: Number of eggs, fry, and/or fingerlings produced from spawns that were sold/stocked.
Finfish Farms: Pounds produced for restoration and/or consumption purposes, includes aquaponics.
Seaweed Nurseries: Number of kelp spools produced.
Seaweed Farmers: Wet pounds of sugar kelp produced and harvested.
Aquaponic Plants: Pounds of consumable produce/terrestrial plants.

Product Distribution Methods

Survey participants were asked to select the method(s) and frequency used for product distribution.

46 Responses



Direct to Consumer: Selling product directly to individual(s) consuming the product.

Restaurants: Selling directly to restaurants, caterers or other food service companies.

Wholesaler: Selling directly to a business that distributes at wholesale prices to other businesses.

Retail Outlet: Selling directly to a store that sells to customers.

Direct to a Grower: Selling juvenile shellfish or fish (eggs, fry, fingerlings) to farmers or private pond owners that will raise the product.

Restoration: Putting shellfish seed or fish into public waterbodies to enhance the existing population.

Other: Includes research when the product is not released or sold as well municipal use of dried seaweed as a fertilizer enhancement.

Aquaculture and Seafood Resources

New York Sea Grant staff have created a variety of additional resources. To learn more about aquaculture and seafood safety, visit the various links listed below.

NY Sea Grant Aquaculture: www.nyseagrant.org/aquaculture

- NY Aquaculture Fact Sheet: bit.ly/AquacultureFacts
- NY Aquaculture: Status, Updates & Opportunities: bit.ly/Aquaculture_Report
- NY Aquaculture Needs Assessment Summary: bit.ly/NeedsSummary
- NY Aquaculture Needs Assessment Report: bit.ly/NeedsReport

NY Aquaculture Workgroup Site: blogs.cornell.edu/aquaculture-pwt/

Annual New York Seafood Summit Event: www.nyseagrant.org/seafoodsummit

Seafood Processing & Marketing Resources: www.nyseagrant.org/seafoodguides

Seaweed Processing & Marketing Resources: www.nyseagrant.org/seaweedguides

Seafood Marketing and Education: www.nyseagrant.org/seafoodmarketing

- Seafood Nutrition Cards: blogs.cornell.edu/nysgmarketing/nutrition/
- Seafood Marketing Resource Cards: blogs.cornell.edu/nysgmarketing/marketing
- Seafood Safe Handling Resource Cards: blogs.cornell.edu/nysgmarketing/seafood-cards/

Visit the NY Sea Grant homepage to learn about all our other work: www.nyseagrant.org/

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