

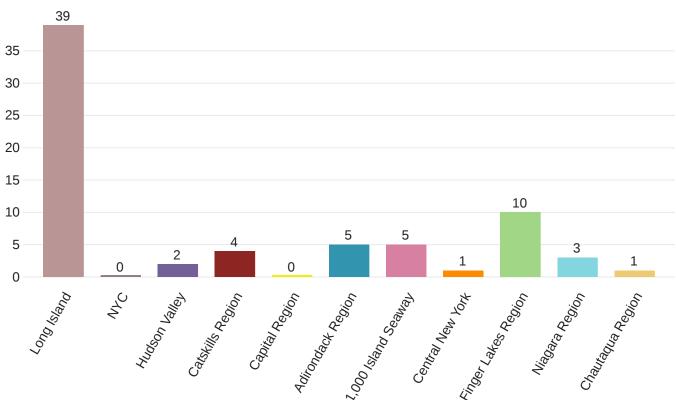
2023 New York Aquaculture Producer Report

Total number of survey respondents: 70

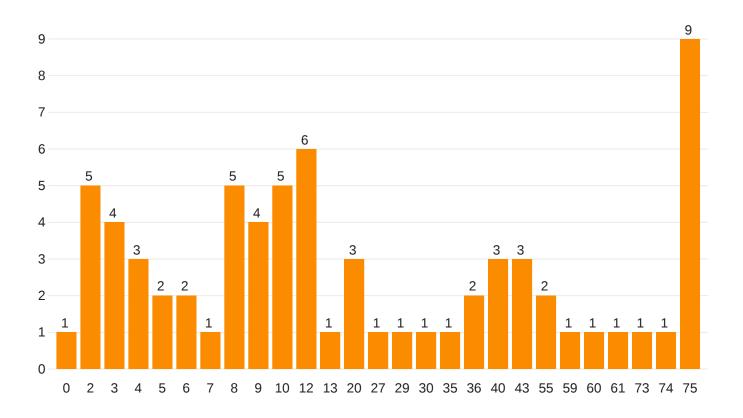
Number of known New York operations survey was distributed to: <u>99</u>

Distribution of Aquaculture Operations in New York





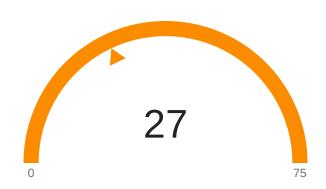
Age (in Years) Distribution of New York Operations



Horizontal (X) Axis - Number of years

Vertical (Y) Axis - Number of operations open for the selected amount of years **Several state fish hatcheries may be older than 75 years but that was maximum option in survey**

Average Age (in Years) of Operations

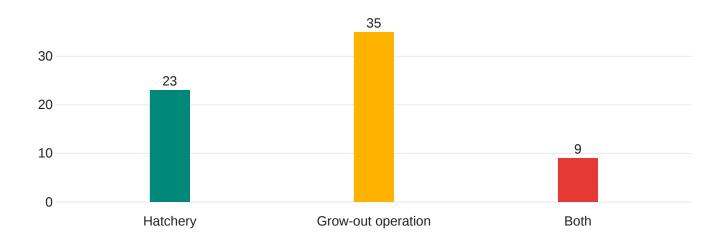


Aquaculture Operations Business Classification



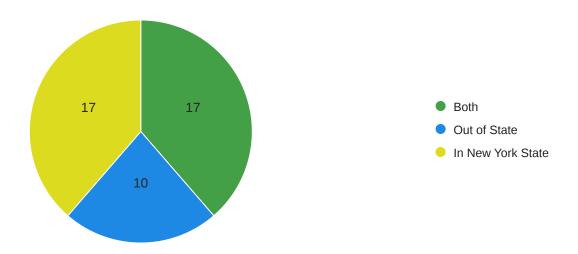
Private: Operation owned by an individual or small group that does not receive tax payer funding. **Not-for-profit**: Has 501(c)(3) status. Includes Colleges/Universities and Indigenous Nations. **State or Municipality**: Receives state or local funding (e.g., NYSDEC and Town Hatcheries).

Quantity of Hatchery and Grow-out Operations



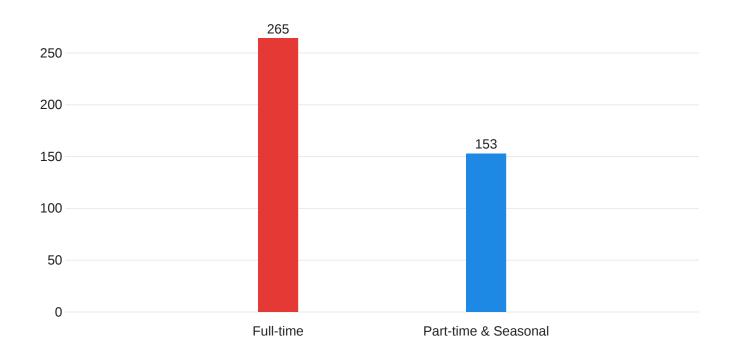
Hatchery Operation: A true hatchery that produces shellfish and finfish by conditioning and spawning adults. **Grow-out Operation**: Acquires seed/eggs/fingerlings from a spawning operation and raises them on their farm. **Both**: May spawn some species but also acquire seed from other hatcheries.

Source of Seed for Grow-out Operations



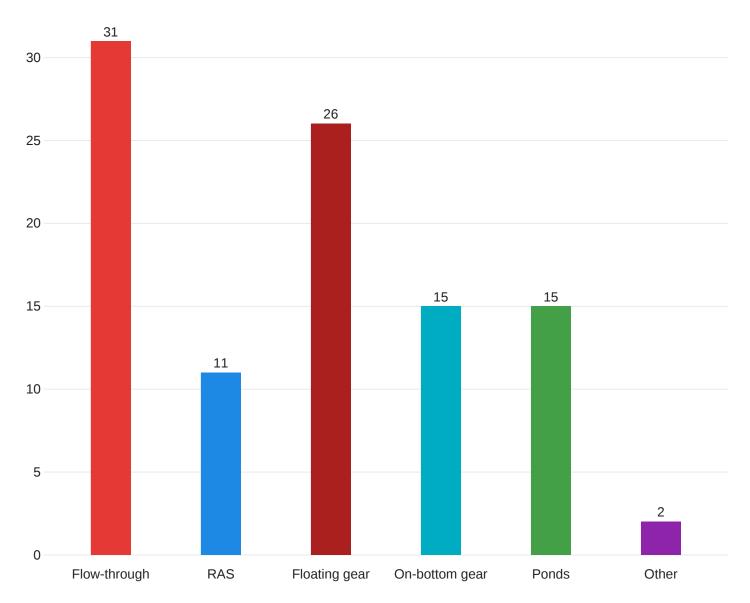
Source of seed includes shellfish, finfish eggs, fingerlings (juvenile finfish), and macroalgae seed spools. Grow-out operations must acquire seed from a hatchery but not all seed is produced in New York.

Number of Jobs the Industry Supported



Full Time: >30 hours per week for >4 months per year. **Part-time & Seasonal**: Employed <4 months per year.

Quantity of Aquaculture Production Systems



Flow-through: Systems that draw water from a source (marine, river, or groundwater), and distribute it through their operation's tanks before discharging it. Includes shellfish hatcheries and many traditional finfish operations.

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

Ponds: Typically a seasonal system, they're often man-made; shallow and drainable, making it easy for harvest.

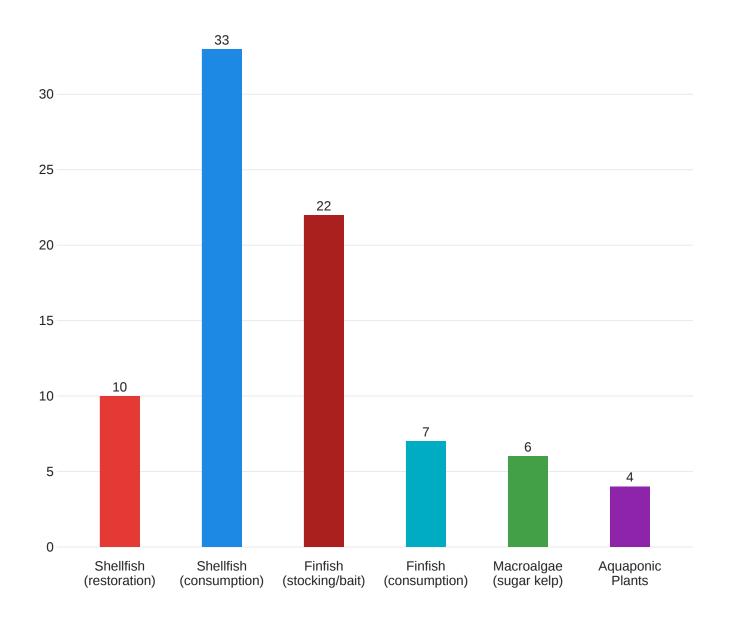
Off-bottom Culture: Floating systems (e.g., cages, docks, lines) for raising shellfish and/or macroalgae.

On-bottom Culture: Generally cages containing shellfish that sit on the bottom and are periodically hauled up for maintenance and harvest.

Other: Includes laboratory aquaria system and brokerage of sales

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

Quantity of Operations Based on Commodity Produced



Shellfish for Restoration: Various species such as hard clam, oyster (single set & spat on shell), bay scallop, and ribbed mussel. Generally produced by not-for-profits and municipal hatcheries.

Shellfish for Consumption: Primarily comprised of single set oyster but may include hard clam.

Finfish for Restoration: Includes various species of fish raised for stocking public waterbodies, private ponds, baitfish, and ornamentals.

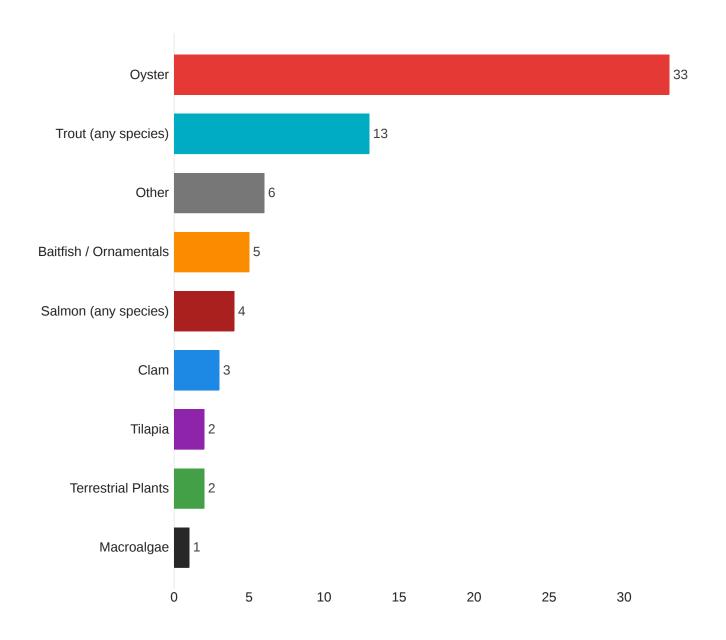
Finfish for consumption: Various species of fish raised as a food product for people.

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

Aquaponic Plants: Includes produce, cannabis, and landscaping plants.

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

Top Species Produced by New York Operations



Most operations produce multiple species but they were asked to select which species they produced the most of or which had the most value. Often this would be the same species but for some finfish operations, they may produce larger quantities of baitfish at lower values than other species they also produce.

Trout Species: Such as Brook, Tiger, Brown, Steelhead, and Rainbow.

Other includes: Walleye, Tiger musky, Lake Sturgeon, Freshwater mussels, Muskellunge, and Bloater.

Baitfish / Ornamentals: Such as Minnows, Koi, Shiners, Goldfish, etc.

Salmon Species: Such as Atlantic, Chinnoock, and Coho.

Terrestrial Plants: Consumable produce (e.g., lettuce), cannabis, and decorative yard plants.

Macroalgae: Currently only sugar kelp.

Production Quantity by Operation Category

Operation Type	Sum
Shellfish Hatchery (# of seed)	155,944,456
Shellfish Farmers (# of pieces)	8,255,000
Finfish Hatchery (number of eggs, fry, fingerlings)	461,297,759
Finfish Farms (pounds of fish)	1,737,565
Macroalgae Nursery (# of spools)	150
Macroalgae Farmers (pounds of kelp)	20,000
Aquaponic Plants (pounds of plants)	460

Quantities Are Estimates From Producers

Shellfish Hatchery: Number of seed produced via hatcheries 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, &/or fingerlings produced from spawns that were sold or stocked.

Finfish Farms: Pounds produced for restoration &/or consumption purposes, includes aquaponics.

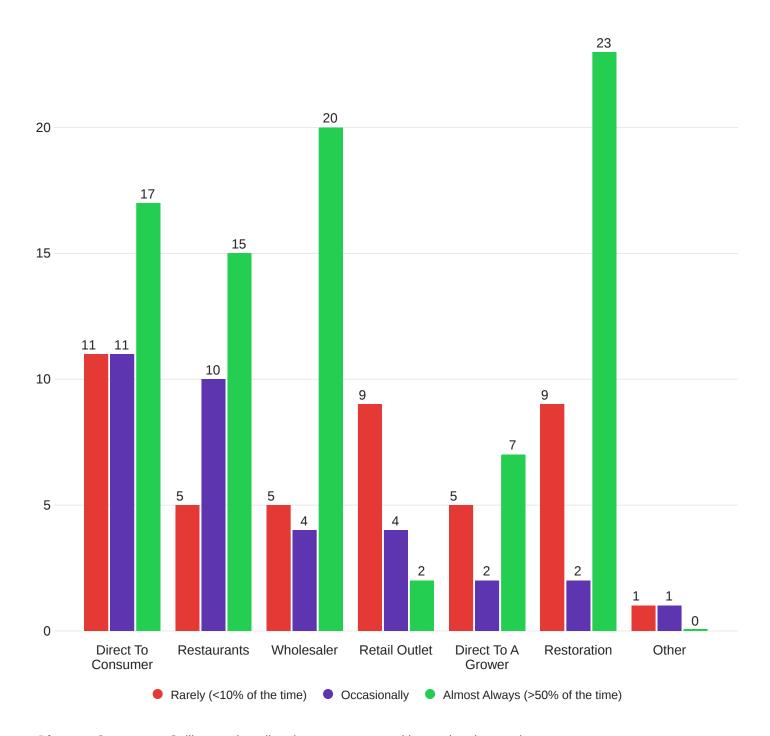
Macroalgae Nurseries: Number of kelp spools produced.

Macroalgae Farmers: Pounds of sugar kelp produced and harvested.

Aquaponic Plants: Pounds of consumable produce/terrestrial plants. Pounds of fish in finfish farm category.

Operation Type	Max (Qty/Pounds)	Average	Responses	Sum
Shellfish Hatchery	50,000,000	10,396,297	15	155,944,456
Shellfish Farmers	1,800,000	294,821	28	8,255,000
Finfish Hatchery	230,554,474	27,135,162	17	461,297,759
Finfish Farms	652,000	108,598	16	1,737,565
Macroalgae Nursery	54	25	6	150
Macroalgae Farmers	20,000	10,000	2	20,000
Aquaponnic Plants	160	92	5	460

Product Distribution Methods



Direct to Consumer: Selling product directly to someone cooking and eating product. **Restaurants**: Selling directly to restaurants, caterers or other food service companies.

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

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

Direct to a Grower: Sell juvenile shellfish or fish (eggs, fry, fingerlings) to farmers that will raise product. **Restoration:** Putting shellfish seed or fish in public waterbodies for restoration and stocking purposes. **Other:** Includes distribution to other state hatcheries (Rarely) and to food pantries (Occasionally)