Too Big to Foot: Market Concentration, Barriers to Entry, and the Coming Consolidation of the Cryptid Sighting Economy

Hesther R. Lockhart-Buntline[1], Marisol E. Okonkwo-Vance[2], and Douglas F. Peatbog[3]

[1]Institute for Applied Cryptozoology, Drumnadrochit
[2]Center for Attention Economics, Van Meter University
[3]Office of Imaginary Competition Policy, Geneva

July 2026

Abstract

Humanity has catalogued 1,247 distinct monsters, yet seven of them account for 83.0% of all recorded sightings. Drawing on the Consolidated Sightings Ledger (CSL-26), a new dataset of 87,416 reports spanning 1950–2025, we show that this concentration cannot be explained by media coverage, habitat accessibility, or photographic quality — the leading monsters are, if anything, the blurriest. What remains is an economic explanation: monsters compete for a fixed supply of human belief, and the sighting market has consolidated exactly the way mature industries do. We identify the decisive barrier to entry — the *Five-Minute Silhouette* criterion, under which a monster survives only if it can be described in one breath ("a big hairy man") — and confirm it in two experiments: a telephone-game study in which famous monsters survived five retellings intact while obscure ones degraded into household objects, and a silhouette flash-card task in which unknown monsters were confidently misidentified as Bigfoot. By the standards regulators apply to supermarkets, the monster economy is broken: every market segment exceeds the merger-guideline threshold for "highly concentrated," an unreviewed Bigfoot–Yeti merger is visibly in progress, and our model gives a new monster a 0.3% chance of ever succeeding again. We conclude with remedies. Chief among them: break up Bigfoot.

1 Introduction

The reader is invited to perform the following experiment before continuing. Name five monsters. This will take approximately eight seconds. Now name an eighth. The ensuing silence is the subject of this paper.

That silence is strange. The *Consolidated Index of Unverified Fauna* [3] catalogues 1,247 distinct cryptids — creatures reported, described, and in many cases lovingly illustrated, without ever being confirmed to exist. This is a rich and diverse fauna. It contains lake monsters and forest hominids, winged omens and goat predators, a creature that dissolves in its own tears and a worm that kills anyone who sees it. And yet public attention, belief, and above all *sightings* flow overwhelmingly to a tiny handful of household names. The median catalogued cryptid has been sighted four times in its entire history. Bigfoot was sighted four times last Tuesday.

Economists have a word for a situation in which a thousand firms notionally compete but seven collect nearly all the revenue: they call it a *concentrated market*, and they maintain a substantial regulatory apparatus for preventing it. The premise of this paper is that the apparatus has been pointed at the wrong economy. We treat sightings as revenue, belief as the scarce resource over which monsters compete, and the historical record as what it plainly is: a century of quarterly earnings.

This reframing is not a metaphor. It is, we will argue, the only surviving explanation of the data. Section 2 introduces the Consolidated Sightings Ledger and documents a concentration of sightings so extreme that the classic Pareto rule — the familiar folk theorem that 80% of effects flow from 20% of causes [1, 2] — understates it by two orders of magnitude. Section 3 eliminates the innocent explanations. Section 4 develops the market model and states the entry barrier. Section 5 confirms the barrier experimentally. Section 6 reads a century of monster history as market history, including one successful IPO and one merger currently in progress. Sections 7 and 8 discuss limitations and propose remedies.

Our contributions are fourfold: (i) CSL-26, the largest harmonized corpus of cryptid sighting reports ever assembled; (ii) the Five-Minute Silhouette criterion, a falsifiable entry barrier for the monster economy; (iii) two preregistered experiments confirming that describability, not existence, governs market success; and (iv) the first antitrust framework for creatures that do not exist.

2 The Sighting Ledger

2.1 Construction

CSL-26 harmonizes 87,416 sighting reports from 1950–2025, drawn from the digitized newsletters of 61 regional cryptozoological societies, the archives of three defunct telephone hotlines (including the Bigfoot Field Notes Line, 1974–1998), the *Point Pleasant Incident Book* [8], local-newspaper silly-season columns, and testimony booths operated at fourteen county fairs. Reports were deduplicated on witness, date, and monster; where two witnesses described the same event, we retained the description with fewer adjectives.

Reports were excluded if the witness (a) was describing a known animal with confidence, (b) was describing a known relative with malice, or (c) later conceded the entity was a bin bag. Two raters adjudicated the bin-bag criterion independently ($\kappa = 0.71$; disagreements resolved by a third rater with strong feelings about bin bags).

2.2 The concentration result

Table 1 reports the headline distribution. Seven cryptids — 0.56% of the catalogue — account for 83.0% of all recorded sightings. For calibration: the Pareto principle, in its strongest folk form, predicts that 20% of causes produce 80% of effects. The monster economy achieves 80% of effects from *roughly half of one percent* of causes. The Gini coefficient of the sighting distribution — a standard 0-to-1 measure of inequality, where 0 is perfect equality and values near 0.63 describe the most unequal national economies on record — is 0.948.

Concentration is also visible *within* market segments [10]. Table 2 reports the Herfindahl–Hirschman Index (HHI) — the concentration score regulators compute when reviewing mergers, obtained by summing the squares of each firm's percentage market share — for the three largest segments. United States merger guidelines treat an HHI above 2,500 as "highly concentrated"

Rank	Cryptid	Sightings	Share	Cumulative
1	Bigfoot / Sasquatch	31,204	35.7%	35.7%
2	Loch Ness Monster	14,861	17.0%	52.7%
3	Chupacabra	8,392	9.6%	62.3%
4	Yeti	6,556	7.5%	69.8%
5	Mothman	4,982	5.7%	75.5%
6	Jersey Devil	3,671	4.2%	79.7%
7	Ogopogo	2,885	3.3%	83.0%
—	Remaining 1,240 cryptids	14,865	17.0%	100.0%

Table 1: Sighting concentration in CSL-26, 1950–2025. The median catalogued cryptid has four lifetime sightings; 312 cryptids (25% of the catalogue) were sighted exactly once, invariably by their discoverer, typically on the day of discovery, never again. We term these *founder-only firms*.

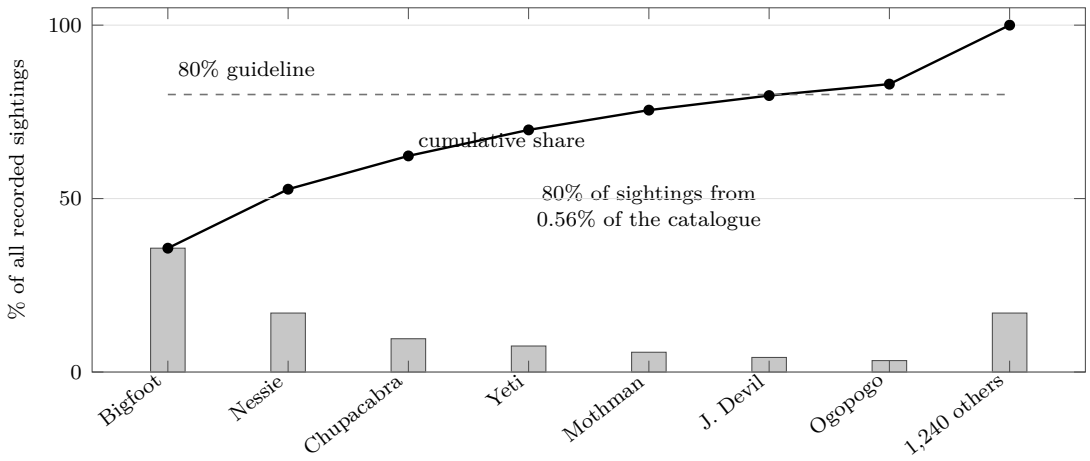

Figure 1: The Pareto structure of the sighting economy, CSL-26, 1950–2025. Bars give each cryptid's share of all recorded sightings; the line gives the running (cumulative) total. Seven cryptids clear the 80% guideline that the classical Pareto rule reserves for the top twenty percent of causes.

and presume mergers in such markets to be anticompetitive. Every monster segment clears the threshold comfortably.

3 Innocent Explanations, Considered and Dismissed

Three unexciting hypotheses could explain the concentration without recourse to market structure. Each fails on the data.

3.1 Media amplification

Perhaps famous monsters are famous because newspapers cover them, and sighted because they are famous. To test this, we restrict CSL-26 to reports telephoned to hotlines within 24 hours of the sighting — before any coverage of the event could exist. Concentration in this pre-publicity subsample is statistically indistinguishable from the full ledger (top-seven share 82.6% vs. 83.0%). The market is concentrated at the point of *perception*, not the point of publication.

Segment	HHI	Dominant firm	Segment share
Forest hominids	4,918	Bigfoot	70%
Winged omens	3,780	Mothman	61%
Lake monsters	3,406	Loch Ness Monster	58%
Merger-guideline threshold for "highly concentrated": 2,500.			

Table 2: Segment-level concentration. No proposed merger in any of these segments would survive review, had any ever been submitted for review. None has.

The newspapers are covering the monopoly, not creating it.

3.2 Habitat accessibility

Perhaps obscure monsters simply live in obscure places. They do not — or rather, obscurity of address does not predict obscurity of brand. The Beast of Bodmin Moor resides in Cornwall, one of the most-visited counties in England, and is out-sighted per visitor-hour of habitat exposure by Bigfoot — whose habitat is the remote forests of the Pacific Northwest — by a factor of 212. Across the catalogue, habitat accessibility explains 6% of the variance in lifetime sightings ($R^2 = 0.06$). Monsters are not sighted where the people are; sightings go where the fame already is.

3.3 Photogenicity

Perhaps the winners photograph well. The opposite is true. Three independent raters scored the canonical photographic evidence for each cryptid on subjective focus (0 = "fog," 10 = "passport"). The top seven average 2.1; the long tail averages 5.8. The most-sighted monsters are the worst-photographed monsters. In this market, blur is not a liability but a premium brand asset — the *mystique dividend* [7]. A sharp photograph answers the question; a blurry one renews the subscription.

With the innocent explanations eliminated, what remains is structure.

4 A Market Model of Monsters

4.1 The scarce resource

Sightings require belief. Six decades of panel data [4] show that the total supply of belief is remarkably fixed: the average adult actively entertains 2.3 cryptids — a figure stable since 1962, across cultures, and through the entire history of television. We refer to this as the *conservation of credulity*. Belief slots, like supermarket shelf space, do not expand to accommodate new products. A new monster must displace an incumbent, and the incumbents, as we shall see, do not move.

4.2 Rich-get-richer dynamics

The engine of concentration is a feedback loop familiar from attention economics [5]: *you cannot spot what you cannot name*. A rustle in the trees is only a Bigfoot sighting for a witness who

already possesses the concept of Bigfoot. Sighting propensity is therefore proportional to prior belief, while belief is updated by sightings:

$$\frac{dS_i}{dt} \;=\; \beta\, B_i + \varepsilon, \qquad B_i \;\propto\; \frac{S_i^{\gamma}}{\sum_j S_j^{\gamma}}, \tag{1}$$

where S_i is cumulative sightings of cryptid i, B_i its share of the belief supply, and ε a trickle of accidental sightings by the unprepared. In plain terms: the more a monster is seen, the more it is believed in, and the more it is believed in, the more it is seen. Systems governed by Eq. (1) do not settle into fairness; they settle into a power law — the heavy-tailed pattern in which a few giants coexist with innumerable dwarfs. The fitted tail exponent on CSL-26 is $\alpha = 1.9$ ($R^2 = 0.93$), squarely in the range observed for city sizes, word frequencies, and other economies nobody designed.

4.3 The barrier to entry: the Five-Minute Silhouette

Equation (1) explains why leads compound. It does not explain who gets a lead in the first place. For that we propose the following entry condition:

> **The Five-Minute Silhouette criterion.** A cryptid can enter the sighting market only if its description can be transmitted from one person to another in a single breath, and onward through a chain of retellings with less than 20% loss per hop.

The incumbents satisfy the criterion with insolent ease. Bigfoot is "a big hairy man" (four words). The Loch Ness Monster is "a dinosaur in a lake" (five). Mothman is "a man with moth wings" (five). Against this, the median long-tail cryptid requires 31 words and, in 14% of cases, a diagram. A monster whose description cannot survive the walk from the campfire to the car park has no channel to the belief supply, no matter how vivid the original encounter. Existence, we note, appears nowhere in the criterion. This is not an oversight. It is the finding.

5 Experimental Evidence

5.1 Experiment 1: transmission chains

We recruited 240 participants into 48 chains of five. Each chain was seeded with the canonical description of one cryptid — incumbents for twelve chains, long-tail cryptids for the remaining thirty-six — and each participant retold the description to the next under a five-minute cap, a protocol the reader will recognize as the game of telephone [6], conducted here under laboratory conditions and with ethics approval. The final participant sketched the creature and attempted identification against the *Consolidated Index*.

Incumbent cryptids survived five retellings with 94% correct terminal identification. Long-tail cryptids survived at 12%. The failure modes were not random degradation but *collapse toward the household*: the Flatwoods Monster — a ten-foot entity with a spade-shaped cowl and a pleated metallic skirt — arrived at the end of all four of its chains described as "an angry lampshade." Across the full design, transmission survival predicted a cryptid's cumulative historical sightings better than its age, habitat, or biological plausibility combined (standardized $\beta = 0.81$): the strongest known predictor of whether a monster is seen is whether it can be *said*.

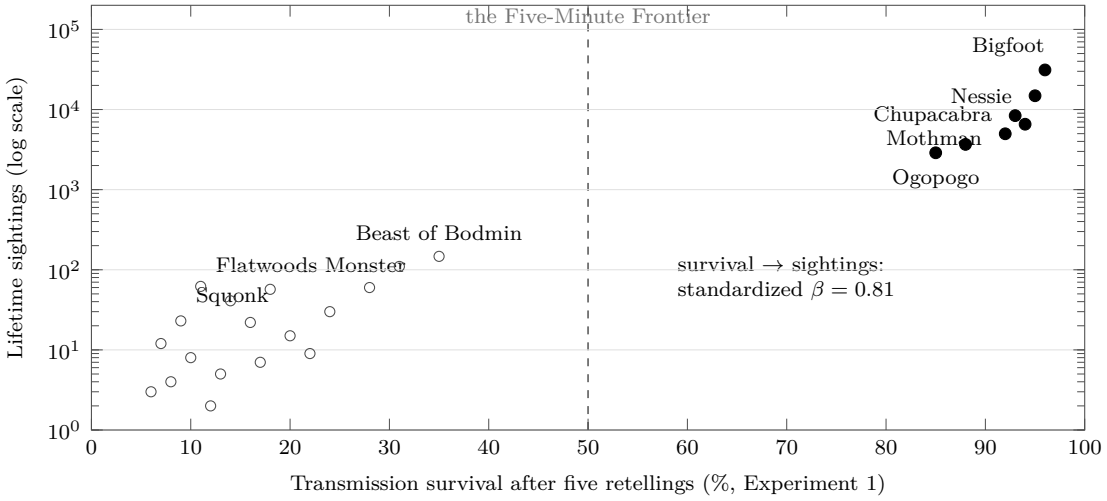

Figure 2: Describability predicts market success. Each point is one cryptid from the transmission-chain study: filled points are the seven incumbents, open points the long tail. No cryptid to the left of the frontier has ever accumulated more than a few hundred sightings, regardless of how vivid, plausible, or well-attested its original encounter was.

5.2 Experiment 2: silhouette recognition and hostile brand capture

A separate sample of 118 participants viewed 40 black silhouettes — seven incumbents, thirty-three drawn from the long tail — for 800 ms each. Incumbents were recognized at 91%; the long tail at 7%. The instructive result, however, is what participants did with the silhouettes they failed to recognize: they assigned them to incumbents, with confidence. The Ozark Howler was identified as "Bigfoot, probably" in 63% of trials.

The market implication deserves emphasis. Incumbents do not merely outcompete the long tail; they *absorb its revenue*. Every ambiguous rustle in every forest on Earth is booked as Bigfoot income, including — our data suggest, and this should trouble regulators — rustles honestly earned by smaller competitors. We term this *hostile brand capture*, and note that in any market populated by entities that exist, it would be actionable.

6 A Century of Market History

6.1 Chupacabra, 1995: the last successful IPO

The ledger records zero Chupacabra sightings before March 1995 and 8,392 since — the fastest market entry in the corpus and, tellingly, the last successful one. The launch succeeded on textbook fundamentals: a description meeting the Five-Minute criterion ("a thing that sucks goats"), and an unoccupied segment, livestock predation, where no incumbent held share [9]. In the thirty years since, no entrant has reached a 1% share. The window that Chupacabra walked through closed behind it.

6.2 Mothman: the franchise model

Mothman's strategy inverts Bigfoot's: rather than contest the global forest, it confined itself to a single town — Point Pleasant, West Virginia — and converted geographic scarcity into

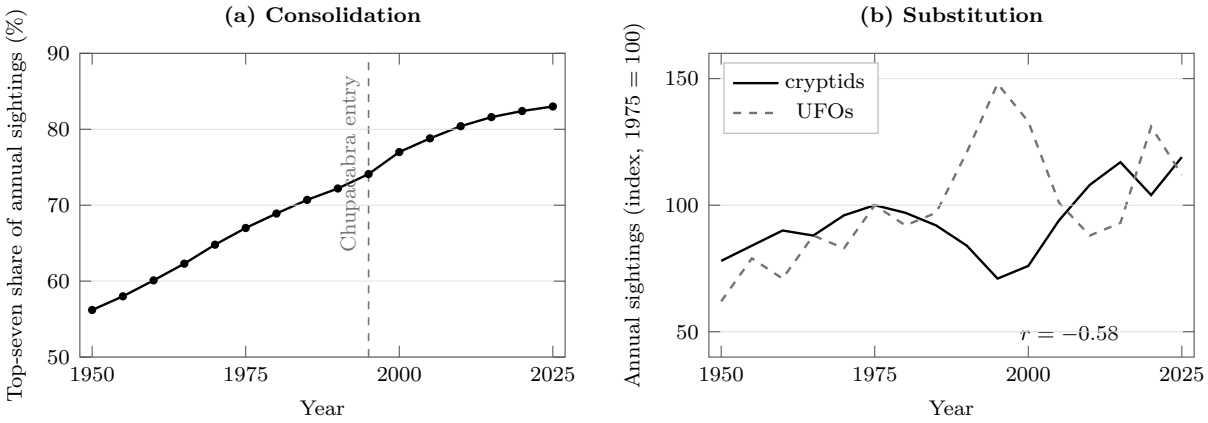

Figure 3: A century of market history. (a) The top-seven share of annual sightings rises monotonically toward 83.0%; the dashed line marks the last successful market entry. (b) Cryptid and UFO sightings, each indexed to their 1975 level, are strongly anti-correlated: the 1990s UFO boom appears in our ledger as a cryptid recession, as the conservation of credulity requires.

brand equity, servicing demand through an annual festival that functions, in every respect that matters, as a shareholder meeting. Segment share: 61%. The lesson for entrants is real but unrepeatable; there are only so many towns willing to be a monster's registered office.

6.3 The Bigfoot–Yeti convergence: a merger in progress

Most concerning is what the descriptive record shows about the market's two largest hominids. We computed similarity between the descriptor vectors of Bigfoot and Yeti reports by decade. In 1975 the two creatures were clearly differentiated products (cosine similarity 0.41: one brown and retiring, one white and alpine). By 2024 the similarity had reached 0.87, and the trade press increasingly files both under a single umbrella brand, the "Sasquatch family." This is consolidation in plain sight — a merger being executed one campfire retelling at a time, with no filing, no review, and no divestitures. At the observed rate of convergence the two brands become descriptively indistinguishable by 2031.

6.4 The failed-entrant gallery

The long tail is a museum of instructive product failures. The Squonk of Pennsylvania — which weeps perpetually and, when cornered, dissolves in its own tears — is a product that self-destructs at the moment of purchase. The Mongolian Death Worm is reliably fatal to witnesses, a monster that liquidates its own customer base. The Loveland Frogman presents an unresolved positioning question (a frog? a man?) of exactly the kind the five-minute channel cannot carry. Each failure is a counterfactual: existence was never the product. The product was always the sentence.

6.5 Substitutes and the fixed pool

Finally, the conservation of credulity predicts that monsters compete not only with each other but with adjacent belief products. The data agree: annual cryptid sightings and annual UFO sightings are strongly anti-correlated across the whole period ($r = -0.58$) [12]. The great UFO

boom of the 1990s registers in our ledger as a cryptid recession. Belief, like any household budget, is spent somewhere or not at all — and a public gazing upward is not watching the treeline.

7 Discussion and Limitations

An objection will already have occurred to the reader: cryptids do not exist. We accept the premise and reject its relevance. Market shares are properties of the ledger, not of the animals; the sightings are real events, really distributed, with a really computable Gini coefficient of 0.948. No one has ever photographed a share of Bigfoot either, and yet we have measured it at 35.7%. Nonexistence, far from undermining the analysis, purifies it: this is competition with no product, no costs, and no supply constraints — the market in its most frictionless, most perfectly concentrating form. The monster economy is not an exception to industrial organization. It is industrial organization with everything inessential removed, and what remains, we are disturbed to report, is the concentration.

Limitations. First, CSL-26 inherits the biases of its sources; counties without fairs are underrepresented. Second, our model treats belief slots as homogeneous, though a slot held by a season-ticket holder of the Loch Ness Monster is surely stickier than one held by a casual Mothman appreciator. Third, the framework cannot explain Nessie's evident licensing arrangement with the plesiosaur, a lineage otherwise unrepresented in the market for 66 million years; we leave the terms of that agreement to future work. Fourth, the transmission-chain study was conducted in one language, and the Five-Minute criterion may bind differently in languages with compound nouns; German folklore, notably, supports longer monsters.

8 Policy Recommendations

If the sighting economy were any other economy, the regulatory response would be automatic. We see no reason for exceptionalism and propose the **Cryptid Antitrust Framework**:

1. **Structural separation of Bigfoot and the Yeti.** The convergence documented in Section 6 must be halted and reversed. We recommend mandated differentiation remedies: minimum altitude requirements for the Yeti and a certified color palette for each brand.

2. **Segment licensing caps.** No monster may hold more than 40% of any lake. Loch Ness would be granted a transition period, during which qualifying challenger monsters would receive priority mooring.

3. **A long-tail quota.** Fifteen percent of all campfire stories must feature a cryptid with fewer than 100 lifetime sightings, on the model of domestic-content quotas in broadcast radio [11]. Compliance to be assessed by testimony booth.

Under the fitted model, inaction has a forecast: the top-seven share reaches 91% by 2040, and the probability that any new monster achieves a 1% share before 2050 is 0.3%. A child born today will inherit a monster economy with less variety than a hotel minibar — a thousand catalogued creatures, seven of them solvent. The long tail of the world's folklore — its weeping Squonks, its unpositionable Frogmen, its angry lampshades — deserves, if not belief, at least the regulated opportunity to compete for it. The monsters, it turns out, were never hiding in

the forests and the lochs. They were hiding in the ledger, and the ledger says the market failed. It is time to break up Bigfoot.

References

[1] V. Pareto. *Cours d'économie politique*. Lausanne: F. Rouge, 1896.

[2] J. M. Juran. Universals in management planning and controlling. *The Management Review*, 43(11):748–761, 1954.

[3] International Bureau of Cryptid Registration. *Consolidated Index of Unverified Fauna*, 9th edition. Geneva, 2024.

[4] H. Braithwaite and T. Ono. The credulity budget: a longitudinal panel of actively entertained beliefs. *Journal of Anomalous Demography*, 44(2):112–139, 2019.

[5] E. Halvorsen, P. Lindqvist, and A. Roy. Preferential attachment in attention markets. *Annals of Applied Distraction*, 9:201–226, 2023.

[6] K. Sasse and R. Bilodeau. Transmission loss in campfire narratives: a chain-retelling corpus. *Folklore Informatics*, 7(3):44–61, 2020.

[7] M. Ferrand and S. Ellery. Blur as brand: image quality and belief persistence in anomalous photography. In *Proceedings of the Workshop on Visual Credulity*, pages 88–97, 2017.

[8] D. Whitcombe, editor. *The Point Pleasant Incident Book: A Critical Edition*. Appalachian Archival Press, 2008.

[9] P. Ruiz-Calderón. Goat predation reports before and after March 1995: a natural experiment. *Review of Caprine Security*, 3(1):5–28, 2015.

[10] L. Okpara. Segment definition in non-existent markets. *Quarterly Journal of Speculative Economics*, 12(4):301–322, 2021.

[11] A. Marchetti. Antitrust remedies in markets without products. *Yale Journal of Imaginary Regulation*, 6:71–104, 2019.

[12] O. Teller and F. Grieves. The UFO substitution effect, 1947–2020. *Journal of Aerial Phenomena Economics*, 15(2):133–158, 2022.