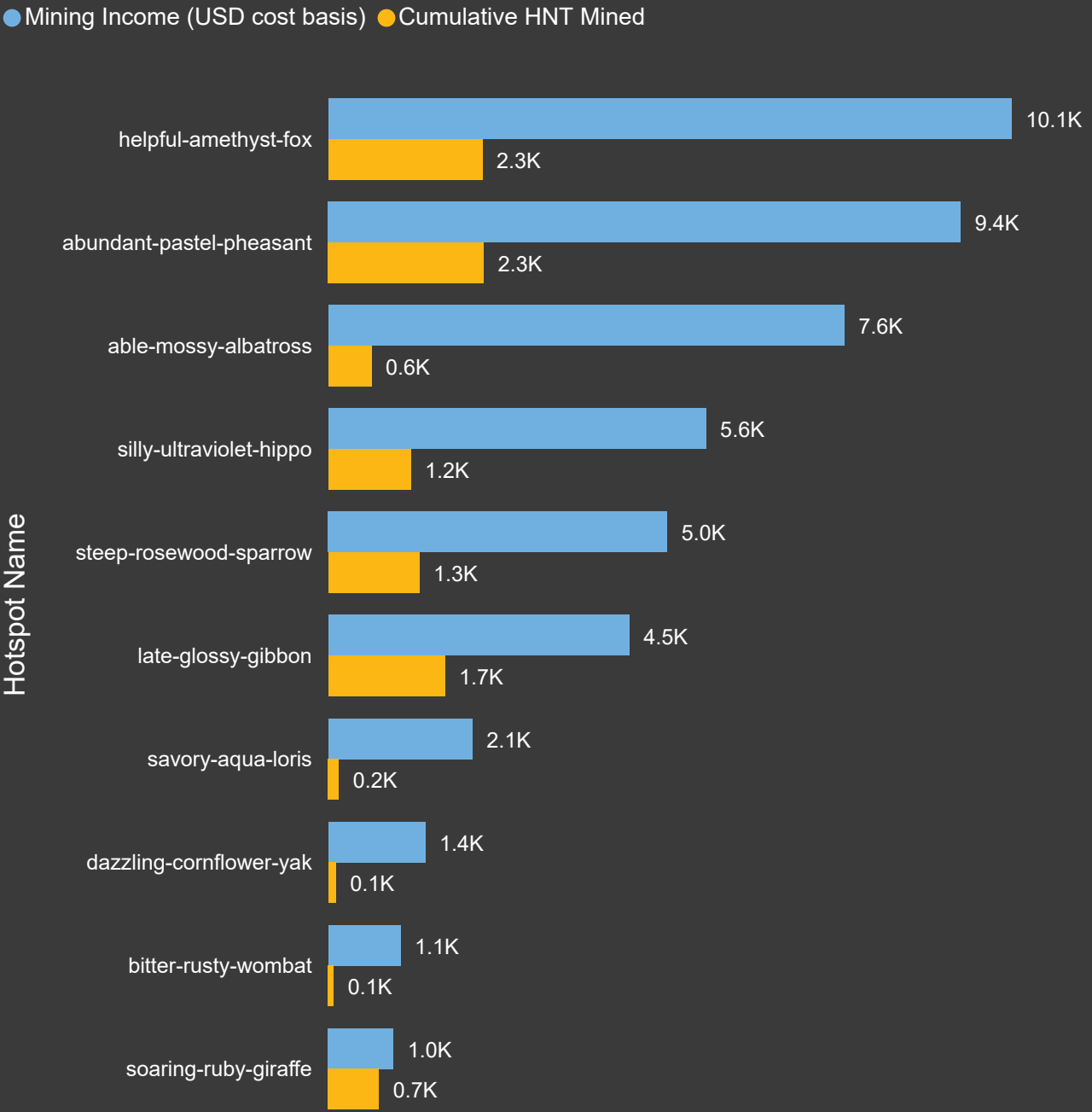
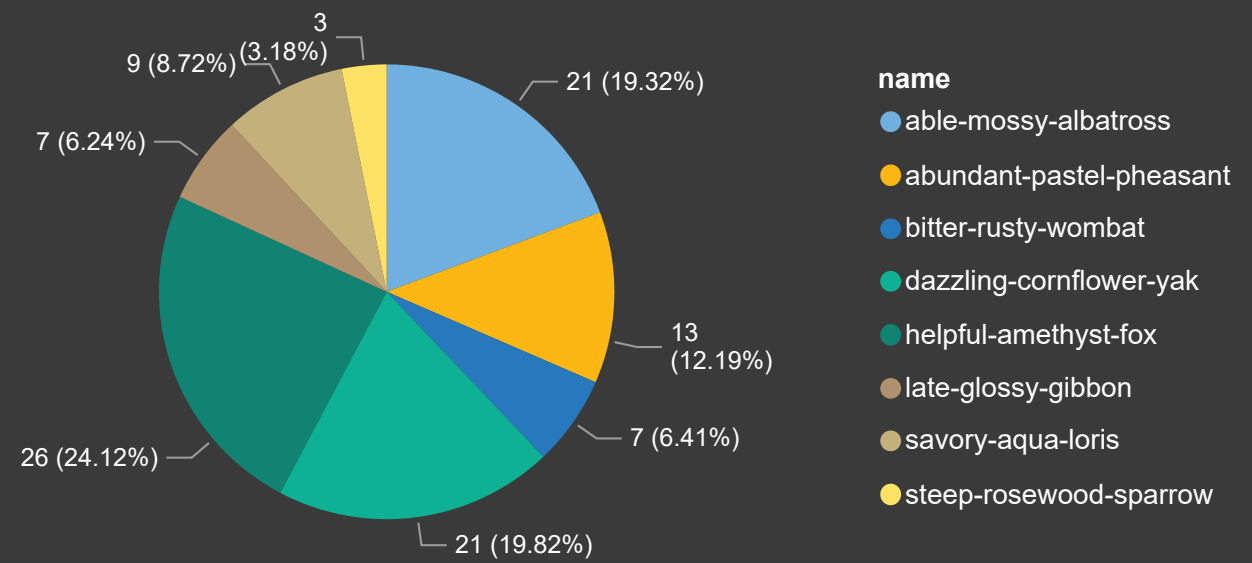


# Helium Hotspot Fleet - Performance Summary

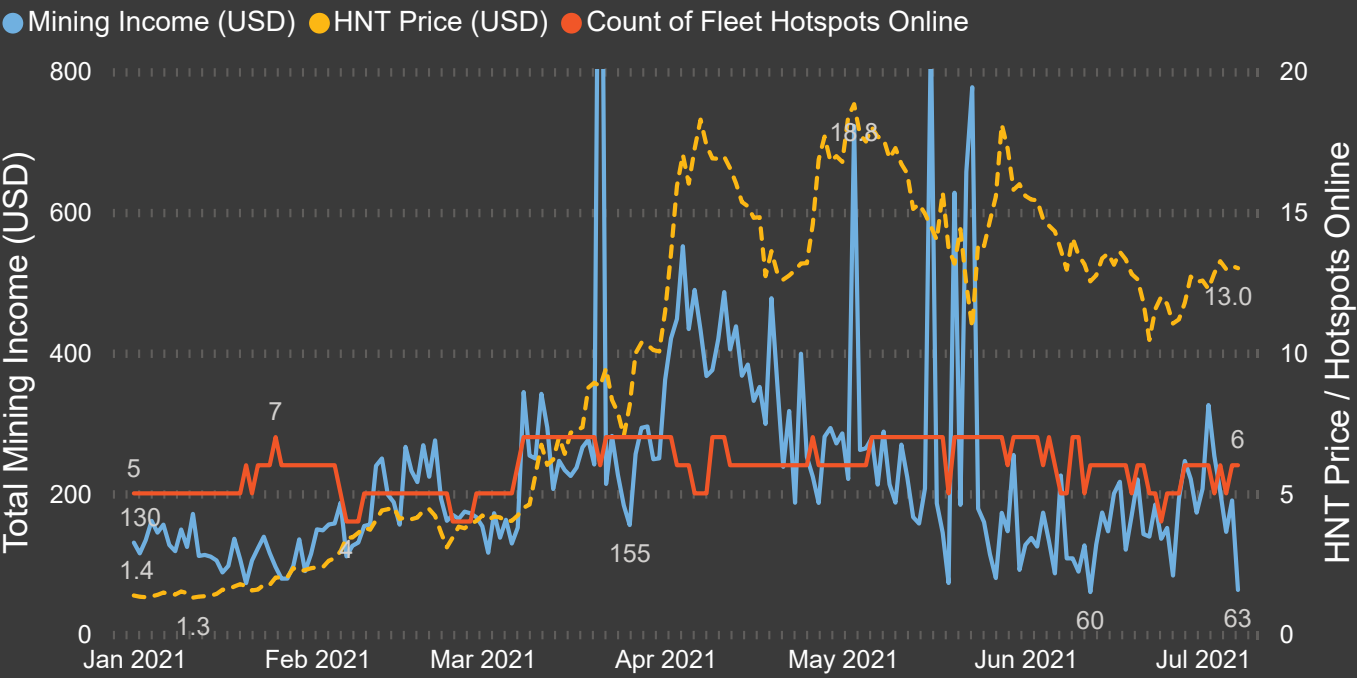
## All Time Hotspot Income



## HNT Mined - Past 7 days

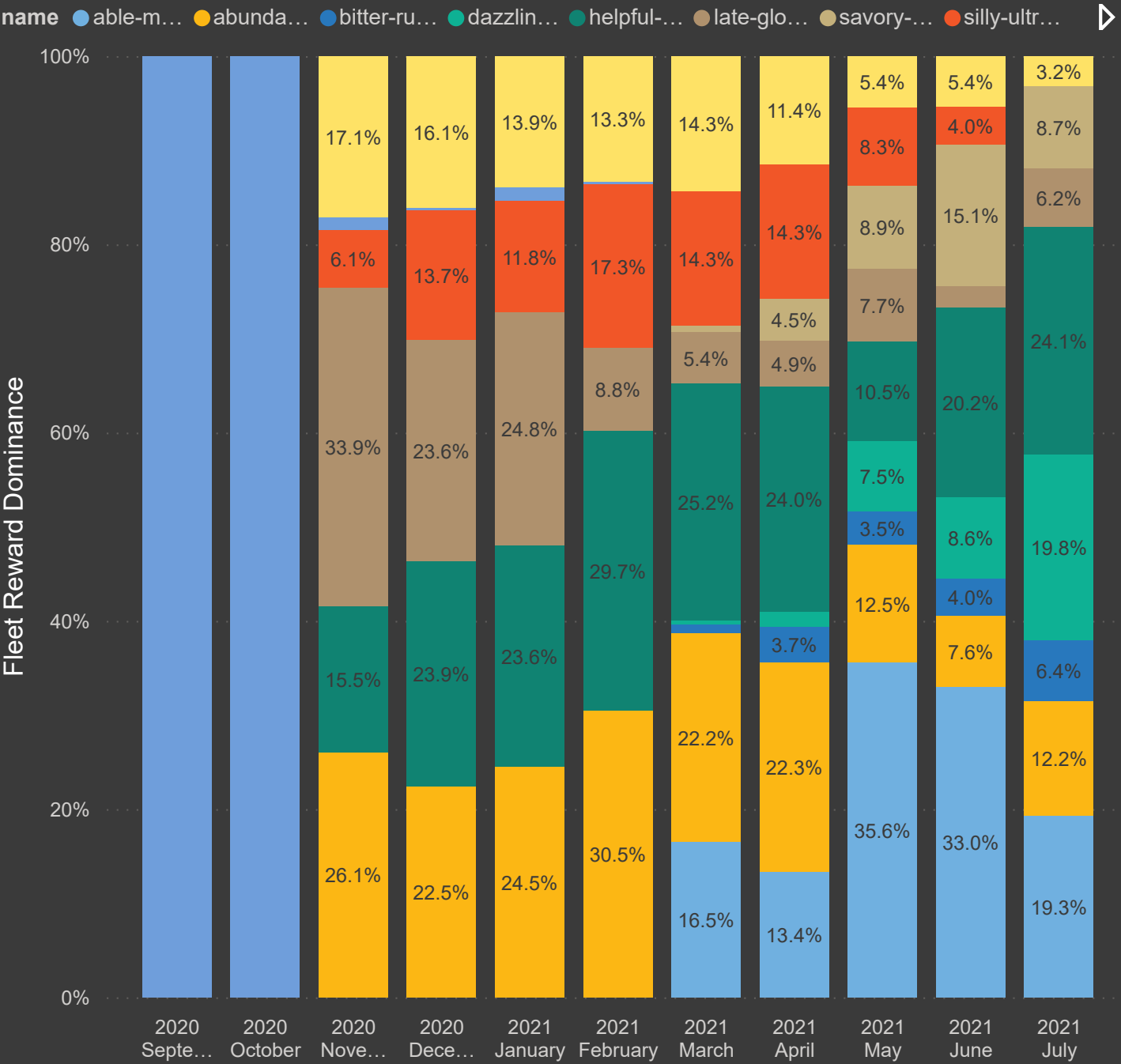


## Fleet Mining Income (USD)

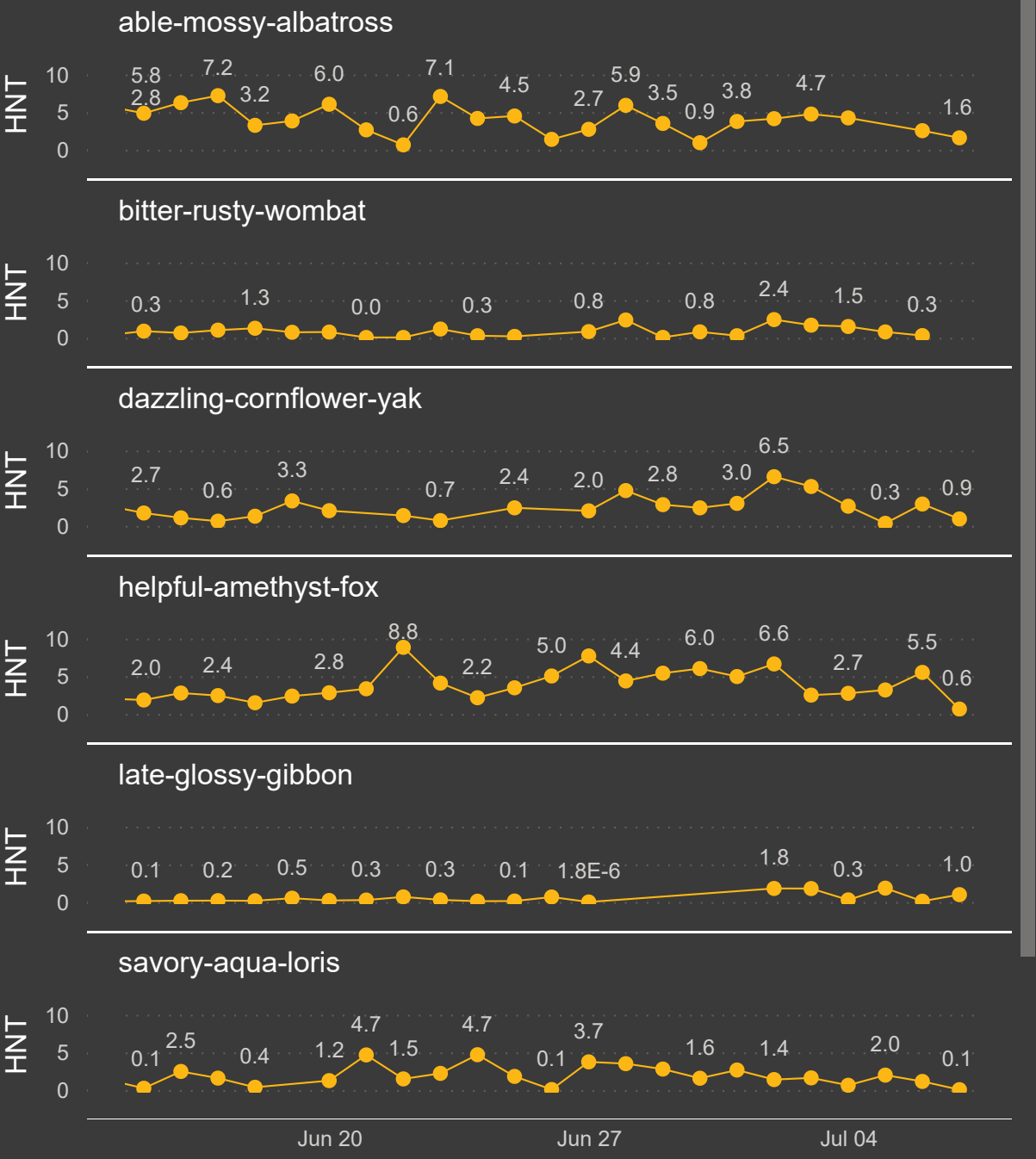


# Helium Hotspot Fleet - Detailed Performance Comparison

## Hotspot Fleet Reward Dominance

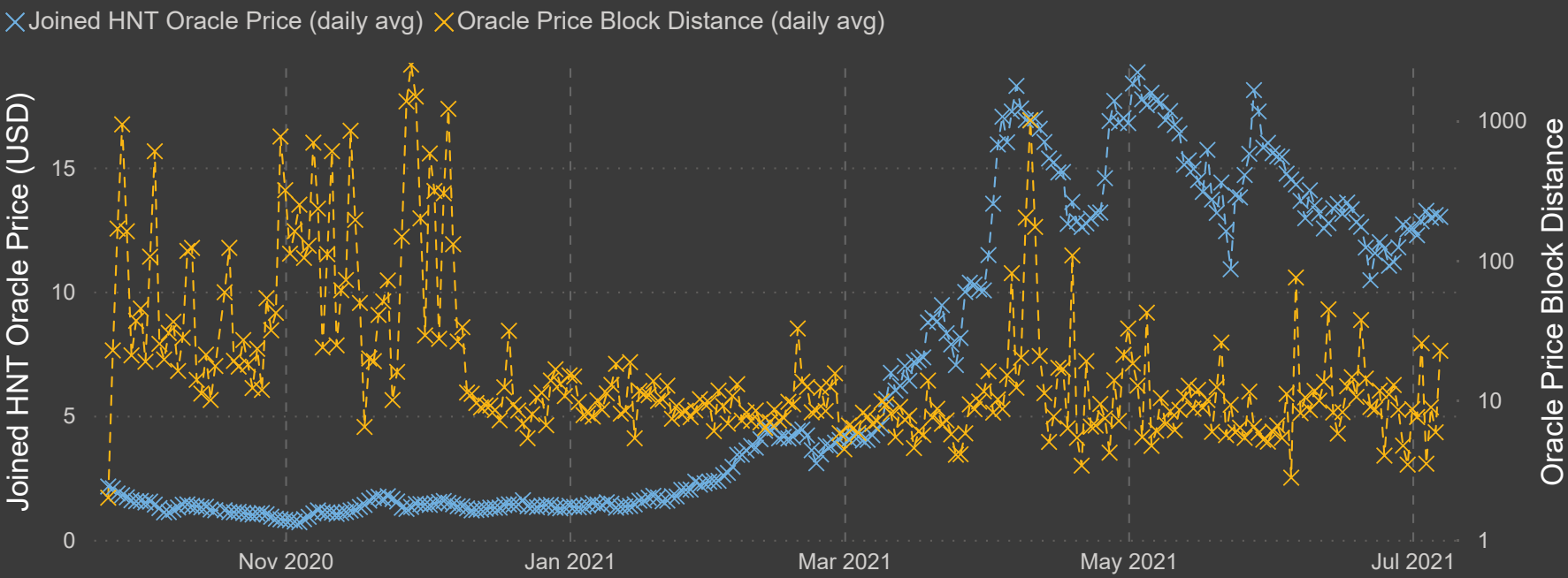


## Daily Hotspot Fleet Rewards



# Oracle Price Join QC Analysis (join mining reward txn to closest oracle price by block)

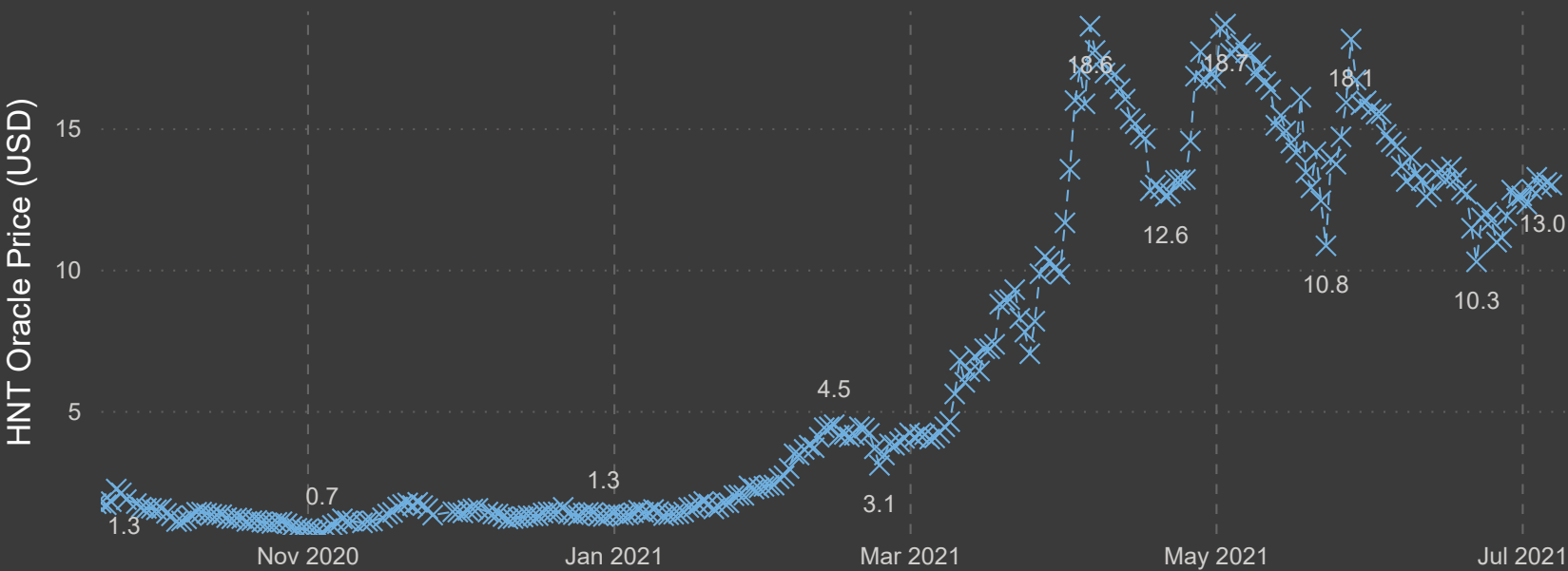
Joined HNT Oracle Prices and Oracle Price Block Distance (b/w mining reward and closest price)



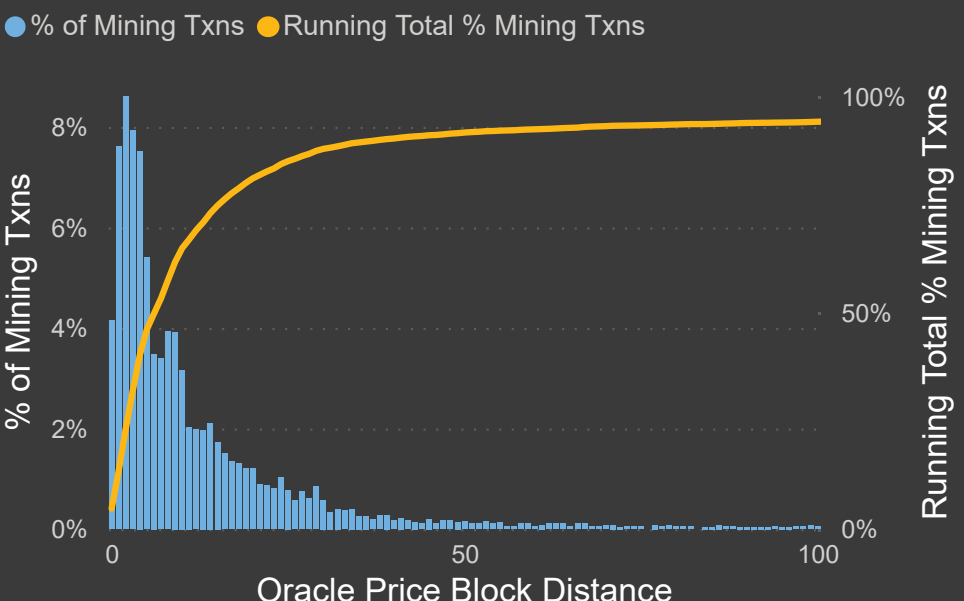
## Comments

- overall it appears the prices were joined as expect
- the largest spike in block distance (top left) occurred on Nov 27-29 where the oracle network didn't see a single update (bottom left)
- Dec 10 sees a significant drop in block distance, same day HIP 17 launched (more analysis required to further explain the drop)
- According to the Helium Blockchain Explorer current avg block time is ~1.1 min, therefore:
  - **median** oracle price block distance is **7 blocks** or **~8 min**
  - **90%** percentile oracle price block distance is **40 blocks** or **~44 min**
  - **95%** percentile oracle price block distance **100 blocks** or **~1.8 hrs**

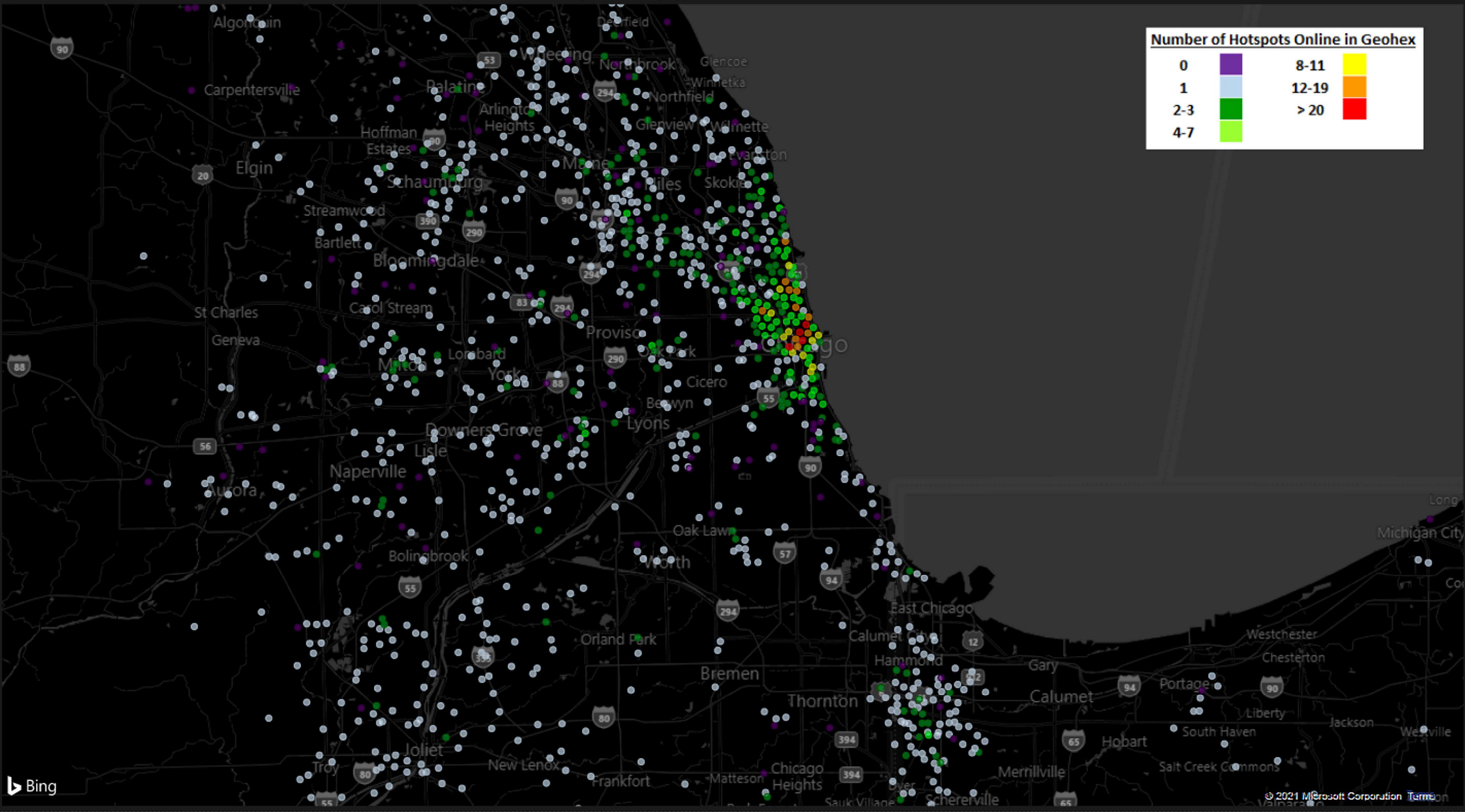
Raw HNT Oracle Prices (USD, daily average)



Block Distance Distribution



Spatial Hotspot Distribution Density for Greater Chicago Area (categorized by geohe





**Spatial Hotspot Distribution Density for SF Bay Area (categorized by geohex)**

Number of Hotspots Online in Geohex			
0	1	2-3	4-7
8-11	12-19	> 20	

Bing

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