# Ministry of Agriculture
# Fisheries Department

## Seabob Catch per Unit Effort (CPUE)
## Annual Report
## 2015

**Mr. Seion Richardson**
**Fisheries Officer**

## 1.0 Acronyms

| | |
|---|---|
| ATRP | Alternative Target Reference Point (TRP) |
| BEV | BEV Processors |
| BRD | By-Catch reduction device |
| CPUE | Catch per Unit Effort |
| CRFM | Caribbean Regional Fisheries Mechanism |
| CS | Closed Season |
| DAS | Days at Sea |
| ETP | Endangered threatened and protected |
| FD | Fisheries Department |
| GATOSP | Guyana Association of Trawler Owners and Seafood Processors |
| GQS | Guyana Quality Seafoods |
| HCR | Harvest Control Rule |
| IUU | Illegal, Unreported and Unregulated |
| MOA | Ministry of Agriculture |
| MSC | Marine Stewardship Council Certification |
| MSY | Maximum Sustainable Yield |
| NHS | Noble House Seafoods |
| PSI | Pritipaul Singh Investment |
| SMP | Seabob Management Plan |
| SWG | Seabob Working Group |
| TAE | Total Allowable Effort |
| TED | Turtle Excluder Device |
| TRP | Target Reference Point (TRP) |
| TP | Trigger Point |
| LRP | Limit Reference Point |
| VMS | Vessel Monitoring System |

## 2.0 Background

Guyana`s seabob stock was last assessed in June 2013, where it was deemed fully exploited but not overfished. As a result of same, a proposed Harvest Control Rule (considered as `best practices` in fisheries management) was drafted following deliberations with the consultant, GATOSP, and Fisheries Department. The current rule allows for 87 seabob vessel licenses each with an allocated 225 days at sea. This has since been implemented (2014), monitored and enforced by the key stakeholders, in particular, the Fisheries Department through the Seabob Working Group (SWG). Consistent monitoring of vessel catch (Catch Per Unit Effort) and vessel movements while fishing (via Vessel Monitoring System) is currently being managed by Fisheries Department.

Guyana`s Seabob Fishery has been well known over the years for generating foreign exchange earnings and revenue through exports regionally and to markets in North America and Europe. The major industrial stakeholders include: Pritipaul Singh Investment (PSI), Noble House Seafoods (NHS), BEV Processors (BEV), Guyana Quality Seafoods (GQS), the Guyana Association of Trawler Owners and Seafood Processors (GATOSP), the Seabob Working Group (SWG) and the Fisheries Department (FD).

# Table of Contents

## 3.0 Introduction

The Statistical Unit of the Fisheries Department, Ministry of Agriculture, is the unit responsible for the collection, compilation, and analysis of seabob and other fisheries-related data. This year marks the commencement of Seabob CPUE monitoring which is being guided by the Harvest Control Rule (Medley 2014). The seabob CPUE reports were presented and discussed at the SWG`s customary meetings (usually held the last Thursday of every month) following which they are shared with the relevant stakeholders. The reference points used were taken from the HCR report and are used as primary indicators to assess catch rates (annually) and guide the requisite adjustments to DAS if needs-be, in order maintain the seabob stock above the MSY.

Guyana`s Seabob Trawl fishery is a closed fishery which allows for 87 vessels to fish for 225 days each. The vessels that went fishing throughout the year are divided up amongst 4 companies; Guyana Quality Seafoods Inc. (GQS), BEV Processors (BEV), Noble House Seafoods Ltd. (NHS) and Pritipaul Singh Investment Inc. (PSI). The individual catch rates (CPUE) observed by three former company was below the target reference point (TRP) while the catch rate observed by PSI was above the TRP. What follows is an overview of the seabob fishery along with observations made during the year 2015.

## 4.0 HCR Description

The HCR chosen by the industry (225pv_DaS) was consistent with attaining MSY and maintaining the stock above the limit reference point. For the HCR index, three reference points were proposed (Table 2). These were based around the observation that approximately 15000 standardized days-at-sea (approximately 20000 nominal days-at-sea) achieve an average SSB of 40% of the unexploited SSB, a proxy for $B_{MSY}$. The average catch rate at this level of depletion was 630kg processed tail weight per fishing day (Medley 2014).

Consultations with the industry suggested the lowest acceptable of 315kg processed tail weight per fishing day was an acceptable limit reference point (i.e. 50% $B_{MSY}$). That is, if catch rates fell to this level, a moratorium would be acceptable for economic reasons. Additionally, two trigger points were suggested. Firstly, the main trigger for stock rebuilding at 540kg per standardized day-at-sea, which is approximately 70% of the range between the limit and target reference points. Secondly, a reasonable catch rate based on economic considerations suggested by industry was approximately 600 kg per standardized boat day, a little below the target (Medley 2014).

**Table 1 -** HCR index reference points used in developing a precautionary HCR.

| | **Index Value (kilograms processed tail weight per standardised day at sea)** |
|---|---|
| Target Reference Point (TRP) | 600 |
| Alternative TRP | 630 |
| Trigger Point | 540 |
| Limit Reference Point | 315 |

## 5.0 Data Presentation and Analysis

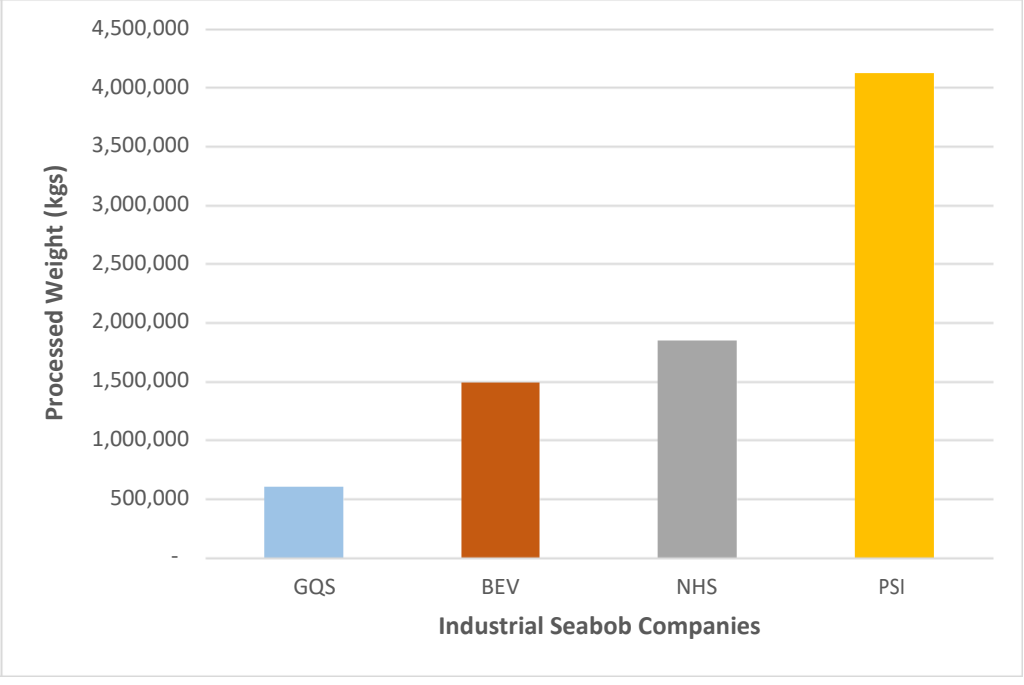
A total of eighty three (81) vessels operated in 2015, spending approximately thirteen thousand, eight hundred and twenty three standardized days-at-sea (13,823 sdas). A sum of eight million, sixty two thousand, nine hundred and ten kilograms (8,062,910 kgs) of seabob was processed after landing. The observed catch per unit effort (CPUE) was five hundred and eighty three kilograms per standardized day-at-sea (583 kg/sdas). The Seabob vessels were permitted to operate between the 7 and 18 fathom lines which were established along Guyana's coastline within the Exclusive Economic Zone.

**Table 2 -** A summary of Guyana`s industrial processed Seabob landings 2015.

| INDUSTRIAL SEABOB CPUE 2015 | | | |
|---|---|---|---|
| **Months** | **Processed Weight (kgs)** | **Standardised Days-At-Sea (sdas)** | **Catch Per Unit Effort (CPUE)** |
| **January** | 857,000 | 1,277.327 | 671 |
| **February** | 813,689 | 1,280.541 | 635 |
| **March** | 1,007,735 | 1,391.534 | 724 |
| **April** | 1,022,614 | 1,478.883 | 691 |
| **May** | 563,244 | 1,201.061 | 469 |
| **June** | 775,469 | 1,307.552 | 593 |
| **July** | 762,710 | 1,420.544 | 537 |
| **August** | 267,773 | 822.038 | 326 |
| **October** | 341,306 | 856.602 | 398 |
| **November** | 713,646 | 1,319.819 | 541 |
| **December** | 937,725 | 1,466.769 | 639 |
| | **8,062,910** | **13,822.670** | **583** |

(Source: Seabob CPUE 2015 Data Sheet.)

**Figure 1** - A comparison of Guyana`s Industrial Seabob Processed Landings 2015 by company.

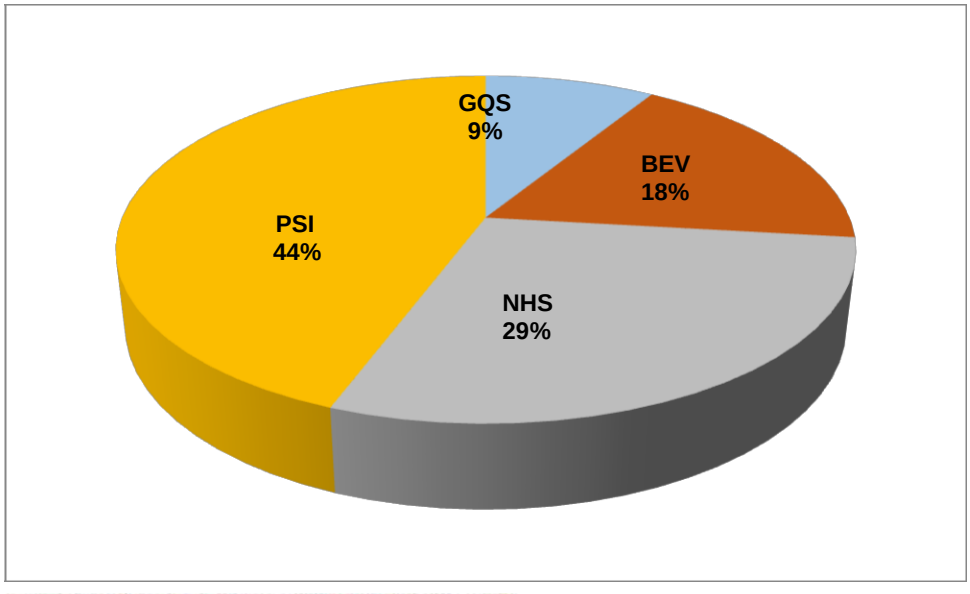



(Source: Seabob CPUE 2015 Data Sheet.)

The graph above represents the total number of seabob processed after landing in kilograms by each of the industrial Seabob companies. From January to December 2015 a total of eight million, sixty two thousand, nine hundred and ten kilograms (9,017,087 kgs) of seabob was processed after landing.

Pritipaul Singh Investments Inc. landed four million, one hundred and twenty one thousand, six hundred and twenty three kilograms (4,121,623 kgs) of that amount; this represents more than half i.e. *51%* of the total weight. Noble House Seafoods Ltd. landed one million, eight hundred and forty eight thousand, six hundred and ninety eight kilograms (1,848,698 kgs), this translates to *23% (the second highest)* of the total weight. BEV processors Inc. landed one million, four hundred and eighty five thousand, eight hundred and ninety three kilograms (1,485,893 kgs). This landing represents *18% (the penultimate lowest)* of the total weight and happens to be lower than that of both PSI and NHS; due in part to a comparatively smaller fleet size. Guyana Quality Seafood Inc. landed six hundred and six thousand, six hundred and ninety six kilograms (606,696 kgs), representing *8% (the lowest)* of the total weight landed and the only company to record below one million kilograms processed Seabob after landing.

**Figure 2** - Representative analysis of the standardized days at sea usage for the industrial Seabob companies.

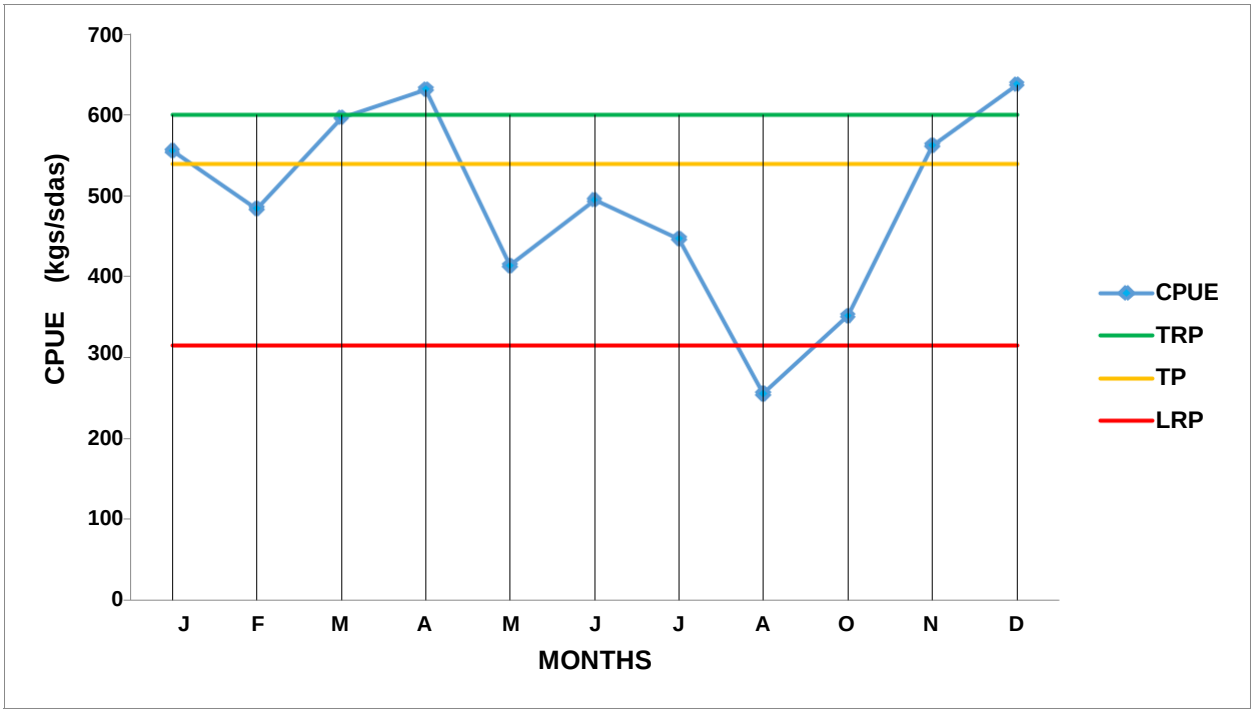



(Source: Seabob CPUE 2015 Data Sheet.)

The figure seen above *(i.e. Graph 2)* is a graphical representation of the respective fishing efforts (standardized days at sea/sdas) which were exerted by the aforementioned industrial companies in 2015. Noteworthy, is the fact that the total effort utilized during 2015 was observed to be below the total allowable effort.

Pritipaul Singh Investments Inc. standardized days at sea represents 44% *(six thousand, one hundred and eighteen sdas)* of the total days utilized by industrial fleet. Noble House Seafood Ltd. `s spent 29% *(three thousand, nine hundred and ninety seven sdas)* of the aforesaid expended days. The two companies combined shared the greater majority *(73%)* of the days spent at sea. The two remaining companies; BEV processors Inc. and Guyana Quality Seafood Inc. were responsible for 18% *(two thousand, four hundred and eighty sdas)* and 9% *(one thousand, two hundred and twenty eight sdas)* respectively, of the total days spent at sea.

**Figure 3 -** Shows the Seabob Catch Per Unit Effort *(CPUE)* for Guyana Quality Seafoods Inc. in 2015.




(Source: Seabob CPUE 2015 Data Sheet.)

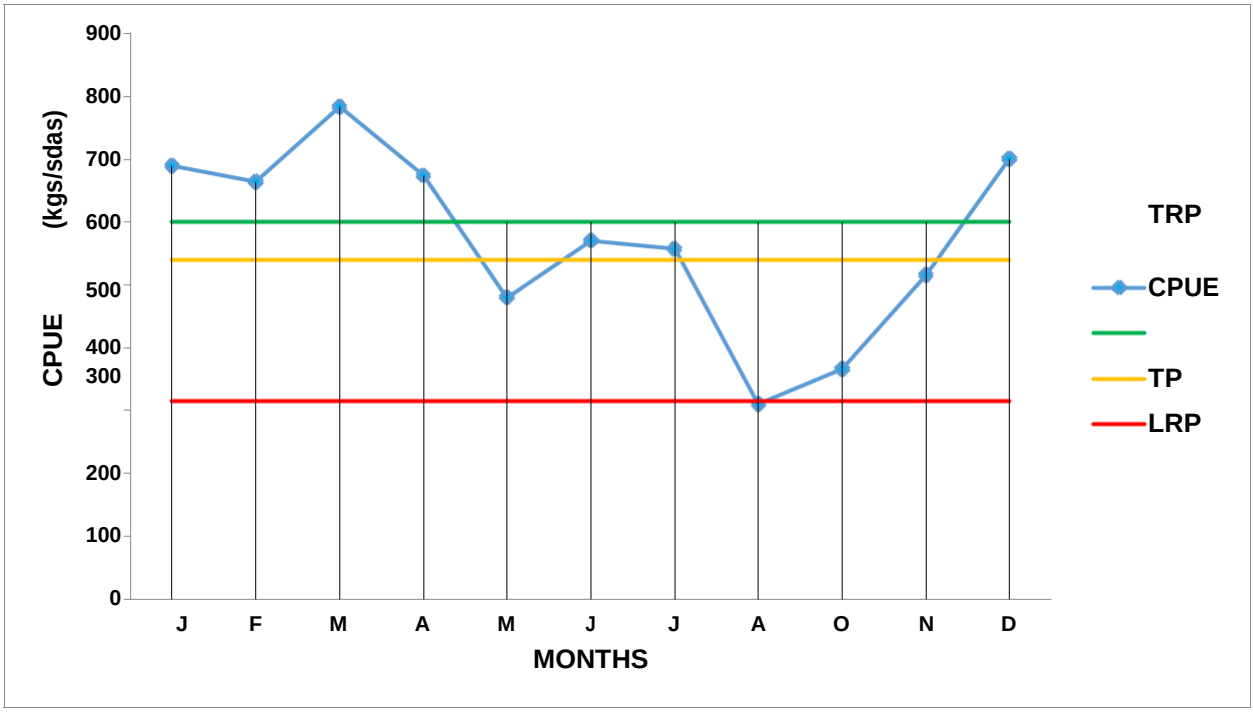
The overall performance[1] of Guyana Quality Seafoods Inc. during 2015 can be considered not acceptable as the recorded monthly CPUE were consistently below the TRP and TP (mostly the latter) except for the months of April *(632 kg/sdas)* and December *(638 kg/sdas)*. Consequently, the overall average for the company was 494 kg/sdas; representing a mark, 18% below the TRP and 9% below the TP. The highest recorded Seabob CPUE *(i.e. outside of the primary closed seasons months[2])* was observed in December (638 kgs/sdas) and the lowest in October *(352 kgs/sdas)*.

Overall the company recorded six hundred and six thousand, six hundred and ninety six kilograms *(606,696 kgs)* processed tail weight of seabob; utilizing one thousand, two hundred and twenty eight *(1,228)* standardized fishing days to achieve same. The highest recorded processed tail weight of Seabob *(i.e. outside of the primary closed seasons months)* was observed in the month of December *(79,133 kgs)* and the lowest in October *(36,804 kgs)*.

[1] Table with additional details for each of the four companies can be viewed in the Annex section of this document.

[2] For most parts of September and October annually, Guyana`s Seabob Fishery is closed for a period of approximately seven weeks. During this time the industrial seabob fleets (comprising of 87 vessels licenses) are prohibited from fishing.

**Figure 4 -** Shows the Seabob Catch Per Unit Effort *(CPUE)* for BEV Processors Inc. in 2015.

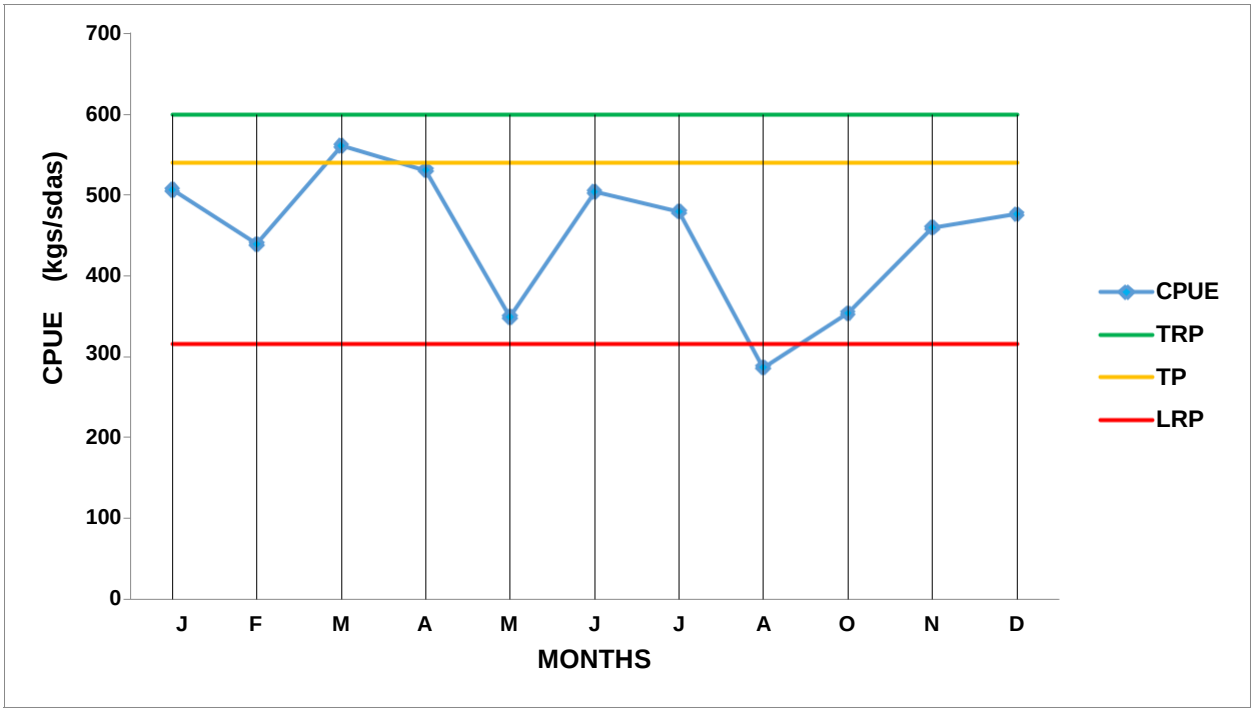



(Source: Seabob CPUE 2015 Data Sheet.)

The overall performance of BEV Processors Inc. during 2015 can be categorized as not ideal, meaning the annual catch rate was slightly below the TRP (i.e. 599 kg/sdas). Notwithstanding, exceptions were observed in the months January, February, March, April and in December where catch rates of 689, 664, 784, 674 and 701 kg/sdas respectively were recorded. As referenced earlier, the overall average for the company was 599 kg/sdas *(greater than that of GQS`s 494 kg/sdas, but similarly below the TRP of 600 kg/sdas)*. The observed average represents a point 0.2% below the TRP and 11% above the TP. The highest recorded Seabob CPUE *(i.e. outside of the primary closed seasons months)* was observed in March (784 kgs/sdas) and the lowest in October *(366 kgs/sdas)*.

The company recorded an annual total of one million, four hundred and eighty five thousand, eight hundred and ninety three kilograms *(1,485,893 kgs)* processed tail weight of seabob; exhausting roughly two thousand, four hundred and eighty *(2,480)* standardized fishing days to accomplish same. The highest recorded processed tail weight of Seabob was realized in the month of March *(215,777 kgs)* and the lowest in the month of October *(52,120 kgs)*.

**Figure 5 -** Shows the Seabob Catch Per Unit Effort (CPUE) for Noble House Seafoods Ltd. in 2015.

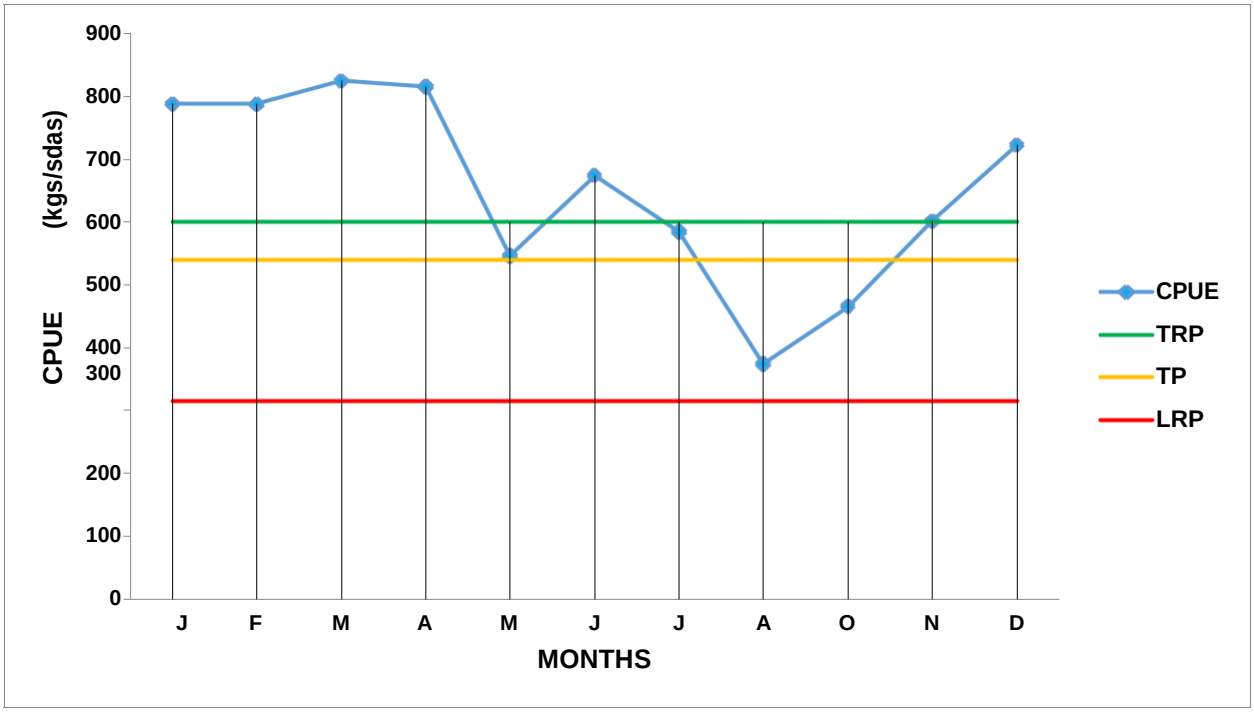



(Source: Seabob CPUE 2015 Data Sheet.)

Noble House Seafoods Ltd., recorded the second highest *(1,848,698 kgs)* processed tail weight of seabob in 2015 when compared to the other seabob processors. Noteworthy also, is the fact that the company`s annual catch rate *(462 kg/sdas)* was the second lowest in the said year, across all companies and the second company (GQS included) to fall beneath the TP of 540 *kg/sdas*. The observed rate represents a point which is 14% below the TP and 47% above the LRP. The highest recorded Seabob CPUE *(i.e. outside of the primary closed seasons months)* was observed in March *(561 kgs/sdas)* and the lowest in May *(349 kgs/sdas)*. This occurrence *(i.e. the least productive month)* is unique to NHS; as all other companies recorded theirs in October.

Overall the company utilized approximately three thousand, nine hundred and ninety seven *(3,997)* fishing days. The highest recorded processed tail weight of Seabob *(i.e. outside of the primary closed seasons months)* was observed in the month of April *(236,214 kgs)* and the lowest in October *(98,434 kgs)*.

**Figure 6 -** Shows the Seabob Catch Per Unit Effort (CPUE) for Pritipaul Singh Investment Inc. in 2015.

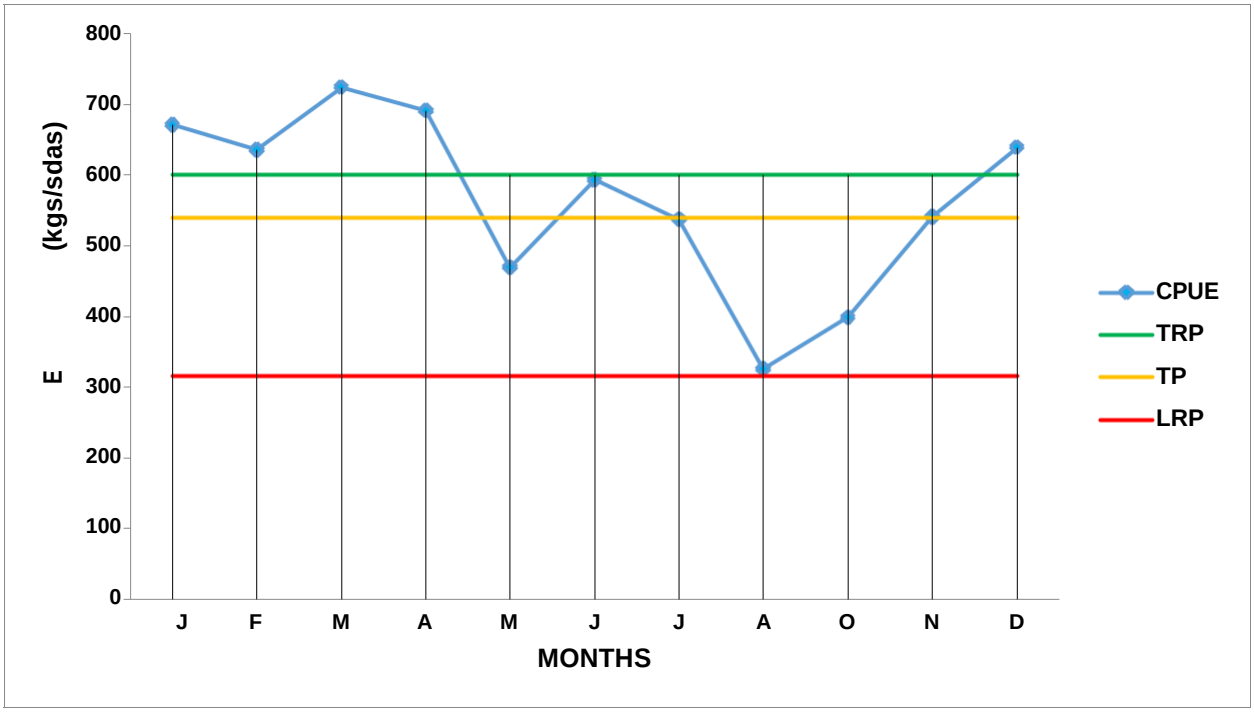



(Source: Seabob CPUE 2015 Data Sheet.)

The overall performance of Pritipaul Singh Investment Inc. during 2015 can be considered exceptional, as both the monthly catch and catch rate have demonstrated. PSI has the largest vessel fleet *(28)* and consequently recorded both the highest overall processed tail weight *(4,121,623 kgs)* and CPUE *(674 kg/sdas)*, respectively. Further, the CPUE was consistently around or above the TRP except for the months of May *(546 kg/sdas*), July *(584 kg/sdas),* August *(374 kg/sdas)* and October *(465 kg/sdas)*. The average catch rate *(i.e. 674 kgs/sdas)* represents a point; 12% above the target/first trigger and 7% above the alternative target reference points. The highest recorded Seabob CPUE *(i.e. outside of the primary closed seasons months)* was observed in March *(824 kgs/sdas)* and the lowest in October *(465 kgs/sdas)*.

Overall the company utilized approximately five thousand, three hundred and fifty *(6,118) standardized* fishing days. The highest recorded processed tail weight landing of Seabob *(i.e. outside of the primary closed seasons months)* was observed in the month of April *(544,200 kgs)* and the lowest in October *(153,948 kgs)*.

**Figure 7 -** Shows the Seabob Catch Per Unit Effort (CPUE) for the Industry (All Companies) in 2015.




(Source: Seabob CPUE 2015 Data Sheet.)

The overall performance of the Seabob Industry during 2015 can be considered unacceptable as the observed annual catch rate (CPUE) was below the TRP i.e. 583 kgs/sdas; representing a point 3% below the TRP and 8% above the TP of 540 kg/sdas. The highest recorded Seabob CPUE *(i.e. outside of the primary closed seasons months)* was observed in March (724 kgs/sdas) and the lowest October *(398 kgs/sdas)*.

The Seabob fleet exhausted roughly thirteen thousand, eight hundred and twenty three *(13,823)* standardized fishing days in 2015. The highest accumulated standardized fishing days was observed in the month of April *(1,479 sdas)* and the lowest *(i.e. outside of the primary closed seasons months)* in the month of October *(857 sdas)*.

## 6.0 HCR Evaluation

The HCR was evaluated using the 2013 assessment (CRFM 2013). The evaluation procedure is to apply a simplified management strategy evaluation. This is possible because the HCR is simple and does not require sophisticated stock assessments (Medley 2014).

For the calculation of the harvest control rule index either the standardized effort can be calculated based on each trip length or an adjustment made to the total days-at-sea based on the ratio between mean trip length and equivalent estimated fishing days. The former is the preferred method, but the adjustment based on the mean trip length is simpler and should be work well enough as long as vessel operations do not change substantially (Medley 2014).

The TAE found in Annex 1[3] of the HCR report, clearly sets out the procedure which should be followed when calculating the DAS adjustments (if any) for the subsequent year. The DAS computation for 2016 can be seen on page 15.

[3] See Annex 1 of this report for full procedure.

The Total Allowable Effort/Days-At-Sea (DaS) Quota for 2016:

Ideally, the DaS Quota should be calculated after the "Current Index" has been found. This index shall be calculated as the average between the previous year's index value and the catch rate of the previous year (i.e. a moving average). Against this backdrop, since 2015 was the initial year of implementation (i.e.no previous data was factored in) the CPUE for 2015 was treated as the Current Index and thus was applied to the DAS calculation for 2016.

The CPUE for 2015 was 583 kg/sdas; which is below the TRP but above the TP and as such bullet point number 3[4] was applied in adjusting the DAS for 2016. Please see calculation below:

**Formula Applied:** A linearly declining value when the current index is above the trigger index, but below the target index, according to the calculation (TAE in days at sea per vessel):

TAE = 205 + 20*(Current Index – Trigger Index) / (Target Index – Trigger Index)

**Working:**

TAE = 205 + 20*(583 – 540) / (600 – 540)

TAE = 205 + 20*(43) / (60)

TAE = 205 + 20*(0.717)

TAE = 205 + 14

TAE = 219

This result therefore means that the DAS for 2016 should be 219 DAS per fishing vessel; a reduction of 6 days each.

**Important Note:**

The initial calculations conducted found that the CPUE for 2015 was 596 kg/sdas; which translated to 224 DAS per vessel. This was enforced at the time (i.e. for 2016). However, following a subsequent review of the data, amendments were made and the CPUE fell further to 583 kg/sdas. Noteworthy, is the fact that this occurrence was no fault of the industry but rather an internal error; hence the earlier action taken was not reversed.

[4] Please see annex 1.

## 7.0 Conclusion

In 2015, the catch rate was above the TRP for the initial months (i.e. January to April), following which it fluctuated below the TRP for all subsequent months, expect the month of December, where it recovered above the TRP. Consequently, the annual CPUE (583 kg/sdas) was below the TRP of 600 kg/sdas. The result represents a negative deviation of 3% from the target reference point (TRP). The current index, which is the average between the previous year's index value and the catch rate of the previous year (i.e. a moving average), could not have been "ideally" calculated in 2015; as this was the inception year for the implementation of the HCR. Nevertheless, as stated earlier, the catch rate (CPUE) for 2015 was treated as the current index, when calculating the DAS adjustment. The ideal formula will be applicable in the years onwards as all the required parameters will be known.

## 8.0 Recommendations

- Research should be conducted on Guyana`s seabob stock in an effort to investigate and understand their spawning dynamics so as to institute measures to optimise overall management of same.
- Comprehensive studies be conducted to assess the effectiveness of the current close season and its application; both duration and period.
- Specific studies directed towards gathering relevant information on living conditions such as habitat, temperature, spawning habits, species dynamics among other related parameters will be paramount in guiding the formulation and implementation of polices to promote stock sustainability.

## 9.0 Annex 1 - Procedure for Setting the TAE for Guyana Seabob

The Total Allowable Effort days-at-Sea (DaS) Quota shall be set at:

- Maximum 87 licences to fish seabob
- Maximum 225 days at sea per licenced vessel when the indexed catch index is at or above the target index.
- A linearly declining value when the current index is above the trigger index, but below the target index, according to the calculation (TAE in days at sea per vessel):

  TAE = 205 + 20*(Current Index – Trigger Index) / (Target Index – Trigger Index)

- A linearly declining value when the current index is above the limit index, but below the trigger index, according to the calculation (TAE in days at sea per vessel):

  TAE = 205*(Current Index – Limit Index) / (Trigger Index – Limit Index)

- Zero (there is an export moratorium) if the current index is at or below the limit index.

The current index for each year shall be calculated as the average between the previous year's index value and the catch rate of the previous year (i.e. a moving average). The catch rate will be based on reported catch and effort data for all vessels. The catch rate is calculated as the total landings of seabob processed (peeled tail) weight in kilograms divided by the total number of standardised days-at-sea.

The HCR Index in any given year *t* ($I_t$) is calculated as:

$$I_t = 0.5\left(I_{t-1} + \frac{C_{t-1}}{0.766\, D_{t-1}}\right)$$

Where $C_{t-1}$=catch (kg processed tail weight) in the year *t-1* and $D_{t-1}$ = total nominal days-at-sea required to catch $C_{t-1}$. The index calculation should include all observed reliable catch and effort data.

## 9.1 Annex 2 - TAE Conversion Tables

**Table Showing Standardised days-at-sea (i.e. the estimated fishing days (sdas)) based on nominal trip length.**

| Nominal Days at Sea | Relative Mean Days-at-sea | Logistic Estimate Smoothed |
|---|---|---|
| 3 | 2.358 | 2.681 |
| 4 | 4.196 | 3.938 |
| 5 | 4.847 | 4.826 |
| 6 | 5.458 | 5.452 |
| 7 | 5.882 | 5.894 |
| 8 | 6.193 | 6.206 |
| 9 | 6.460 | 6.426 |
| 10 | 6.466 | 6.582 |
| 11 | 6.533 | 6.692 |
| 12 | 6.975 | 6.769 |
| 13 | 4.296 | 6.824 |
| 14 | 5.641 | 6.862 |
| 15 | 6.434 | 6.890 |
| 16 | 6.905 | 6.909 |
| 17 | 8.144 | 6.923 |
| 18 | 7.056 | 6.932 |
| 19 | 5.682 | 6.939 |
| 20 | 7.572 | 6.944 |

**Table Showing Mean trip length and equivalent days-at-sea interpolated from the estimates (9.1 Annex** 2 **- TAE** Conversion Tables

Table **), used to estimate the factor converting nominal days-at-sea to standardised days-at-sea.**

| | |
|---|---|
| Observed Average Days per trip | 8.148 |
| Equivalent Standard Days per trip | 6.244 |
| Conversion Factor | 0.766 |

## 9.2 Annex 3 - Seabob CPUE 2015

| GUYANA QUALITY SEAFOODS - SEABOB CPUE 2015 | | | |
|---|---|---|---|
| Months | Processed Weight (kgs) | Standardised Dats-At-Sea (sdas) | Catch Per Unit Effort (CPUE) |
| January | 44,100 | 79.310 | 556 |
| February | 53,506 | 110.467 | 484 |
| March | 63,284 | 105.993 | 597 |
| April | 68,483 | 108.404 | 632 |
| May | 49,161 | 118.816 | 414 |
| June | 56,533 | 114.182 | 495 |
| July | 54,382 | 121.666 | 447 |
| August | 28,035 | 109.795 | 255 |
| October | 36,804 | 104.698 | 352 |
| November | 73,275 | 130.313 | 562 |
| December | 79,133 | 124.043 | 638 |
| | **606,696** | **1,227.687** | **494** |

| BEV PROCESSORS - SEABOB CPUE 2015 | | | |
|---|---|---|---|
| Months | Processed Weight (kgs) | Standardised Dats-At-Sea (sdas) | Catch Per Unit Effort (CPUE) |
| January | 153,564 | 222.773 | 689 |
| February | 142,984 | 215.383 | 664 |
| March | 215,777 | 275.254 | 784 |
| April | 173,716 | 257.704 | 674 |
| May | 96,323 | 200.761 | 480 |
| June | 147,497 | 258.607 | 570 |
| July | 142,636 | 256.222 | 557 |
| August | 40,887 | 131.863 | 310 |
| October | 52,120 | 142.510 | 366 |
| November | 119,618 | 232.103 | 515 |
| December | 200,771 | 286.493 | 701 |
| | **1,485,893** | **2,479.673** | **599** |

| NOBLE HOUSE SEAFOODS - SEABOB CPUE 2015 | | | |
|---|---|---|---|
| Months | Processed Weight (kgs) | Standardised Dats-At-Sea (sdas) | Catch Per Unit Effort (CPUE) |
| January | 195,947 | 386.991 | 506 |
| February | 169,712 | 386.502 | 439 |
| March | 221,980 | 395.569 | 561 |
| April | 236,214 | 445.194 | 531 |
| May | 112,738 | 322.941 | 349 |
| June | 174,016 | 345.108 | 504 |
| July | 198,692 | 414.375 | 479 |
| August | 59,613 | 207.982 | 287 |
| October | 98,434 | 278.525 | 353 |
| November | 178,044 | 387.450 | 460 |
| December | 203,308 | 426.788 | 476 |
| | **1,848,698** | **3,997.425** | **462** |

| PRITIPAUL SINGH INVESTMENT - SEABOB CPUE 2015 | | | |
|---|---|---|---|
| Months | Processed Weight (kgs) | Standardised Dats-At-Sea (sdas) | Catch Per Unit Effort (CPUE) |
| January | 463,389 | 588.253 | 788 |
| February | 447,486 | 568.189 | 788 |
| March | 506,693 | 614.718 | 824 |
| April | 544,200 | 667.581 | 815 |
| May | 305,023 | 558.543 | 546 |
| June | 397,423 | 589.655 | 674 |
| July | 367,000 | 628.281 | 584 |
| August | 139,239 | 372.398 | 374 |
| October | 153,948 | 330.869 | 465 |
| November | 342,709 | 569.953 | 601 |
| December | 454,514 | 629.445 | 722 |
| | **4,121,623** | **6,117.885** | **674** |