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A study has been made of the vertical distributions and migrations of a large number of zooplankton species at Weather Station "P" in the Subarctic Pacific. Simultaneously towed horizontal opening-closing nets were used for the study. The distributions and migrations of 104 taxa have been subjectively grouped into seven basic patterns. A few taxa could not be so grouped. Examination of hydrographic features reveals correlations between animal distributions and strong hydrographic gradients.

It is concluded that: 1. In boreal oceanic waters, few animals perform diurnal migrations, 2. Depth ranges for most zooplankton are on the order of hundreds of meters, and 3. Hydrographic features may influence the vertical distributions and migrations of zooplankton.

Vertical Distribution Patterns in a Subarctic Pacific Zooplankton Community

by

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DEDICATED TO:

Michel and Grace DeLatour - two stalwart friends.

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VERTICAL DISTRIBUTION PATTERNS IN A SUBARCTIC PACIFIC ZOOPLANKTON COMMUNITY

INTRODUCTION

Hutchinson (1952) has discussed the concept of structure in relation to the physical and biological worlds. In particular, "the structure which results from the distributions of organisms in, or from their interactions with, their environments will be called <u>pattern</u>". In particular the present study deals with the recurrence of similar distributions among different organisms in the same environment. It is in this sense of recurrence that the word <u>pattern</u> will be used.

An attempt has been made to define recurrent patterns of vertical distribution and migration within a community of zooplankton. The elucidation of such patterns is a necessary step in the understanding of the dynamics of such a community. A further attempt has been made to deal with possible influences of hydrographic structure in the shaping of such distributions.

Vertical distributions and migrations among zooplankton have been studied previously by numerous authors. Bainbridge (1961) has reviewed and discussed the generalized patterns and variations encountered in migrations among the Crustacea. He deals extensively with probable mechanisms, and controlling and orienting factors. Banse (1964) has reviewed the factors affecting vertical distributions and migrations among the marine zooplankton. Vinogradov (1968) in his monograph <u>The Vertical Distribution of the Oceanic</u> <u>Zooplankton</u> deals exhaustively with the history of such studies, sampling techniques and biomass distributions. His compilation of the available information by region (Polar, Temperate, Tropical, and Antarctic) plus his comparison of the features of each region is a major contribution to the understanding of oceanic vertical distributions.

Other reviews of vertical distribution and migration include Russell (1927), Kikuchi (1930), and Cushing (1951), whose works are dealt with in the above mentioned reviews.

Physical Environment

Location

Ocean Station "P" (Lat. 50°N, Long. 145°W) lies approximately 500 nautical miles west of the northern tip of Vancouver Island. A ship is maintained on station by the Department of Transport of Canada. Oceanographic observations have been collected there on a regular basis since 1952.

Figure 1 shows the location of Station "P" in relation to the major current systems and water masses in the North Pacific. Lying in the broad boundary between the West Wind Drift and the Subarctic



Figure 1. Location of station "P" in relation to the major current systems of the North Pacific. (from Dodimead, 1968)

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Current, Station "P" is situated south of the Alaskan Gyre, the shear zone between the Alaskan Stream and the Subarctic Current. The "Alaskan Dome" lies in the center of this counter-clockwise circulation and is characterized by having water of relatively higher salinity and lower oxygen and temperature than surrounding areas.

To the south of Station "P" lies the Subarctic Boundary, separating the Subarctic Water Mass from the Subtropical Water Mass to the south. Station "P" therefore, lies well within the Subarctic Water Mass, lying between the Alaskan Dome water to the north and Subtropical water to the south.

Hydrography

The Subarctic Pacific is effectively defined by the vertical structure of the water, primarily in terms of salinity (Uda, 1963). This structure consists of three zones: The upper seasonal zone (0-100 meters), the main halocline (100-200 m), and the lower zone (below 200 m). Figure 2 shows these zones and their seasonal changes.

The upper zone, characterized by relatively low salinity (32.7‰) is subject to pronounced seasonal heating. As Figure 2 shows, this is the area of the seasonal thermocline during the summer. In winter, strong wind mixing creates near isothermal and isohaline conditions in this upper zone. Oxygen concentrations follow a similar



Figure 2. Seasonal variation of hydrographic properties at Station "P". (from Tabata, 1961)

S

seasonal pattern. In summer there is a marked oxygen maximum at a depth of 30-50 m. This presumably arises from phytoplankton production. In winter, oxygen is well mixed in the upper zone.

The permanent halocline is characterized by a decrease of approximately 1‰ salinity between 100 and 200 meters. Oxygen has a similar decrease, reaching levels of 0.3 mg at/l at 200 meters, from values of 0.6 mg at/l in the upper zone. In the halocline, to a depth of about 150 meters, there exists a slight positive thermocline. Below this depth, temperature decreases slowly, reaching 2°C at 2000 meters.

The lower zone is characterized by gradually increasing salinity, and decreasing temperature and oxygen levels. Oxygen reaches a minimum of 0.05 mg at/l between 500 and 1000 meters. Below this there is a gradual increase to 0.3 mg at/l near the sea floor.

Tabata (1965) has reviewed the non-seasonal variability of hydrographic factors in the Subarctic Pacific.

Zoogeography

The North Pacific from the Aleutians north through the Bering Sea, west to the Kuroshio, east into the Gulf of Alaska, and south to approximately 40°N lat. has been recognized by various authors as a separate zoogeographic domain. Brodskii (1957), using the Calanoid

copepod fauna, separated this area as having a distinctive faunal assemblage. Johnson and Brinton (1963) using euphausiids, Beklemishev (1967) using copepods, McGowan and Fager (1971) using additional information on phytoplankton and nekton have all characterized the Subarctic region as zoogeographically distinct. Ocean Station "P" falls well within this region. All of the works mentioned above deal with the fauna in the upper waters (above 200-300 meters). The zoogeographic affinities of the deeper fauna are not yet clear.

Previous Biological Work

Vinogradov (1968), primarily using information from the Western Subarctic, has described the seasonal and diurnal migrations of the major biomass components, along with their seasonal vertical distributions. Little work has been done in the eastern regions.

Using information from Station "P" and elsewhere, Parsons et al. (1966) have described the onset of the spring phytoplankton bloom in the Subarctic Pacific. They have hypothesized that the small standing stock of phytoplankton, in spite of the high primary productivity reported by McAllister et al. (1960), is the result of intense herbivore grazing.

McAllister (1961) has reported on the seasonal vertical distribution of biomass at Station "P". His results have shown a

consistently low biomass associated with the permanent halocline. LeBrasseur (1965) has described the mean annual cycle of zooplankton biomass in the upper 150 meters. His results show an increase beginning in mid-March, a prominent peak in early May, followed by a slow decline through the summer. Vinogradov (1968) has suggested that a portion of the spring peak is due to the ontogenic migrations of the young copepodite stages of the major mass species (i.e., <u>Calanus cristatus</u> and <u>Calanus plumchrus</u>) from their overwintering depths. It is presumably these animals which are grazing the phytoplankton biomass down.

This thesis then falls within a small time segment of important seasonal biotic and hydrographic cycles. Along with future vertical distribution work, it will help elucidate possible interrelations between hydrographic and biological phenomena.

METHODS AND MATERIALS

Field Methods

The samples used in this study were collected over a four day period (July 2-July 5, 1971) at Station "P". Fourteen series of tows were taken. Each series consisted of eight horizontal tows taken in two sections of four simultaneously fishing nets. In addition a single oblique tow in the upper ten meters was included in each series. Target depths for the first section were 25 m, 50 m, 75 m, and 100 m. Target depths for the second section were 200 m, 300 m, 400 m, and 500 m. Opening closing bongo nets (Brown and McGowan, 1966) were used for all tows. Nets were opened at depth by messenger and closed by a volume metering device. All horizontal tows were set to filter two hundred cubic meters of water. For the ten meter oblique tows, volume was estimated by a TSK flow meter mounted in one of the frame mouths. Each net frame was rigged with two nets, one of 0.183 mm Nitex and the other of 0.333 mm Nitex. Depth estimation was done by wire angle and meters of wire between nets calculations. These were checked against a Benthos (TM) timedepth recorder placed just below the deepest net.

All samples were preserved immediately in ten percent buffered sea water formalin.

Hydrographic data were collected by hydrographic casts.

Bottles were placed at standard depths to 600 meters. Expendable bathythermograph records were taken simultaneously. Temperature, salinity and oxygen measurements were made using reversing thermometers, an inductive salinometer and the Winkler method respectively. Casts were made twice daily.

Laboratory Methods

For this study, only the samples taken with the 0.183 mm mesh were used. Because of the large number of tiny animals and the large sample volumes, a two part subsampling scheme was devised for abundance estimates. Samples were first divided in a Folsom Plankton Sample Splitter until a fraction was obtained in which the larger animals gave counts of twenty-five or more individuals per taxonomic category, and the total subsample count ranged between four and seven hundred. All organisms in this fraction were then identified except the smallest calanoid and cyclopoid copepods, and foraminifera. Abundances of the latter three groups were estimated by the dilution of a sample split and the counting of multiple Stemple Pipette aliquots. Categories of these smaller forms were counted until a minimum of fifty individuals had been enumerated in each category or a minimum of three hundred total individuals had been counted.

In all cases all organisms were identified to the most accurate

taxonomic grouping possible. Almost all euphausiids, chaetognaths, ostracods and copepods were identified to specific level, many to life history stage. For this purpose, standard taxonomic references were used. It was not possible to give specific or generic names to all animals. Obviously different types were assigned alphabetic letters as identifiers. Remaining animals were placed in general descriptive categories e.g. Immature Ostracods.

A total of four complete series (36 samples) were analyzed for this study, two day series and two night series. Due to various net failures, no series was complete in itself. For this reason it has been necessary to substitute other samples taken at the appropriate depths and light conditions, but at different times. Table 1 contains a list of the samples used, their exact depths, dates, solar times, and volumes filtered.

All data were punched on computer cards. Calculations and plots of abundance vs. depth were made by computer using programs written by Charles B. Miller.

Table 1. Sample Information

DAY SERIES

		Solar			
Sample No.	Date	Time	<u>Target Z</u>	<u>Estim.</u> Z	Vol. Filtered
6C 0-10m	2 July	1140	0-10m	0-10m	$216 m_{2}^{3}$
6A 25m	2 July	1055	25m	21m	200 m^{3}
6A 50m	2 July	1055	50m	43m	200 m^{3}
6A 75m	2 July	1055	75m	66m	200 m^{3}
8A 100m	2 July	1528	100m	98m	200 m^{3}
6B 200m	2 July	1237	200m	218m	200 m^{3}
6B 300m	2 July	1237	300m	322m	200 m^{3}_{2}
6B 400m	2 July	1237	400m	417m	200 m^{3}_{2}
6B 500m	2 July	1237	500m	502m	200 m^3
11C' 0-10m	3 July	1230	0-10m	0-10m	$201 m_{2}^{3}$
11A 25m	3 July	0740	25m	27m	212 m^{3}
11A 50m	3 July	0740	50m	56m	200 m^{3}
12A 75m	3 July	1106	75m	72m	153 m^{3}_{2}
11A 100m	3 July	0740	100m	101 m	220 m^{3}
11B 200m	3 July	0952	200m	210m	200 m^{3}
11B 300m	3 July	0952	300m	312m	153 m^{3}
11B 400m	3 July	0952	400m	407m	200 m^{3}
11B 500m	3 July	0952	500m	507m	220 m^3
		NIGH	T SERIES		
3C 0-10m	2 July	2238	0-10m	0-10m	162 m^{3}_{2}
4A 25m	2 July	0107	25m	2 3m	189 m^{3}
3A 50m	2 July	2151	50m	47m	200 m^{3}
3A 75m	2 July	2151	75m	72m	200 m^{3}
3A 100m	2 July	2151	100m	98m	200 m^{3}
3B 200m	2 July	2325	200m	212m	200 m^{3}
3B 300m	2 July	2325	300m	311 m	200 m^{3}
3B 400m	2 July	2325	400m	397m	200 m^{3}
19 F 500m	5 July	0041	500m	558m	200 m^3
14C 0-10m	4 July	0122	0-10m	0-10m	$210 m_{2}^{3}$
14A 25m	3 July	2114	25m	22m	$153 m_{2}^{3}$
14A 50m	3 July	2114	50m	49m	$179 m_{2}^{3}$
4A 75m	2 July	0107	75m	74m	$200 m_{2}^{3}$
14A 100m	3 July	2114	100m	99m	$200 m_{2}^{3}$
9B 200m	2 July	2251	200m	198m	$200 m_{2}^{2}$
14B 300m	3 July	2258	300m	314m	$200 m_{2}^{2}$
14B 400m	3 July	2258	400m	414m	$153 m_{2}^{3}$
14B 500m	3 July	2258	500m	510m	200 m ²

RESULTS

A total of 184 categories were identified and counted. Not all categories were abundant enough for analysis. For the purpose of this thesis, those categories which were not present in a minimum of four of the analyzed samples or which had counts of less than ten total individuals were not further analyzed. This was done because abundance estimates for these animals were inadequate.

For the 104 categories analyzed, abundance estimates per 100 m³ were plotted on a log scale vs. depth on a linear scale. The geometric means for day and night abundances are shown with solid lines. Figures 3 through 7 show examples of these graphs. The entire body of the raw data is given in Appendix 11.

Patterns of vertical migration and abundance were then determined by subjectively grouping together graphs with similar distributions. The patterns presented here are the result of this subjective grouping effort.

Migrational Patterns

Migration was determined using Brinton's (1969) criteria of the disappearance of a deep day mode at night with the appearance of an upper mode at night. This allows one to distinguish vertical migration from light aided avoidance.



Figure 3. Abundance vs. depth of (a) Calanus cristatus stage V and (b) Gaetanus simplex females.



Figure 4. Abundance vs. depth for (a) Limacina helicina and (b) Oncaea borealis females.



Figure 5. Abundance vs. depth for (a) Oithona spinirostris females and (b) <u>Racovitzanus pacificus</u> females.







Figure 7. Abundance vs. depth for (a) Eukrohnia bathypelagica and (b) Oncaea media hymena females.

Two migrational patterns were distinguishable. In Pattern 1, the animals exhibit a deep day mode at 300 to 400 meters. At night, the major mode is located in the upper 75 meters as shown by <u>Calanus</u> <u>cristatus</u> in Figure 3a. Appendix 1 contains the plots of the other 4 members of this pattern.

Pattern 2 is demonstrated in Figure 3b by <u>Gaetanus simplex</u> females. Here the deep day mode, located below 300 meters, migrates, but never above 50 meters. The other animal exhibiting this pattern is shown in Appendix 2.

Vertical Distribution Patterns of Non-Migrators

Analysis of the distributions of the non-migratory animals reveals the following patterns:

Animals of Pattern A, shown by <u>Limacina helicina</u> in Figure 4a, are most abundant in the first sample (0-10 m) and decrease exponentially or faster with depth. A total of 23 categories are included in this pattern. Figures showing their distributions are contained in Appendix 3.

Patterns B and C are closely allied to Pattern A. The animals of Pattern B differ from those of Pattern A in that they do not, or only rarely occur in the 0-10 meter samples. As seen in Figure 4b of <u>Oncaea borealis</u> females and in the figures in Appendix 4, these animals' peak abundances are above 100 meters and show a rapid decrease with depth, similar to those in Pattern A. They do however seem to avoid the surface layer. Animals in Pattern C, like those in the preceding two patterns, differ in that they are absent in both the 0-10 and 25 meter samples. <u>Oithona spinirostris</u> females (Figure 5a) exhibit this pattern along with the 9 categories whose distributions are shown in Appendix 5.

The fourth pattern, Pattern D, is exhibited by only four taxa. Figure 5b of <u>Racovitzanus pacificus</u> females shows that these animals major mode of abundance occurs in the 100 meter samples and that they are absent above 75 meters and below 300 meters. Appendix 6 contains the figures for the three other animals exhibiting this type of distribution.

The remaining patterns are all characterized by having deep modes of distribution.

Pattern E is characterized by having the major mode of abundance in the 200 meter sample, with a gradual decrease of abundance with increasing depth. <u>Salp Type A's distribution</u> (Figure 6a) exemplifies this pattern, which is shared by the four other taxa whose distributions appear in Appendix 7.

Pattern F applies to animals that live entirely below 300 meters, with some living only below 400 meters. The distributions of <u>Oncaea media hymena</u> males and <u>Eukrohnia bathypelagica</u> (Figures 6b and 7a) show this pattern. The distributions of the 17 other

animals of this type are shown in Appendix 8.

The final pattern, Pattern G, is almost identical to Pattern F except that these animals were occasionally caught in small numbers at more shoal depths, even in the upper 100 meters, <u>Oncaea media</u> <u>hymena</u> females (Figure 7b) exhibit this pattern, which is shared by the fifteen categories whose distributions appear in Appendix 9.

There remain eight categories whose distributions do not fit into any of the above patterns. Many of these animals are characterized by either bimodal distributions or distributions which show no apparent change of abundance with depth. Graphs for these species appear in Appendix 10.

Hydrographic Results

The results of typical hydrographic casts during the sampling period are shown in Figure 8a, b, and c. Variation among casts was negligible. Comparison of these results with the Figure 3 from Uda (1966) show that a typical summer hydrographic condition existed at the time of sampling.

Correlation of Hydrographic Features and Distributional Patterns

An examination of the described migrational and distributional patterns in relation to the observed hydrographic structure leads to some striking correlations.



Figure 8. Distribution of (a) Temperature, (b) Salinity and (c) Dissolved Oxygen with depth.

While the animals in the first migration pattern appear uninfluenced by hydrographic features, those of the second appear to have migrated into the thermocline and stopped.

The vertical distribution patterns also show correlations with hydrographic features. Animals of Patterns A, B, and C all have their major abundances above the halocline. They differ in that animals of Pattern A have their peak abundance in the warm isothermal surface layer extending down 20 to 25 meters. Animals of Pattern B and C apparently avoid this wind mixed surface layer but still have their distributions primarily above the halocline.

Animals of Pattern D appear most abundant in the region of the halocline.

The animals of the remaining three patters (E, F, and G) are primarily or entirely restricted to levels below the halocline. The variations in the upper depth distributions among these patterns do not correlate with any observed hydrographic feature. It must be noted that the animals of Pattern G are found in relatively small numbers above the halocline, just as the animals of the primarily upper zone distributions are found in small numbers below the halocline. Just as the water structure can be divided into three zones, so the distributions of animals can be roughly defined as above, in, and below the halocline.

CONCLUSIONS AND DISCUSSION

The fact that the patterns of distribution and migration described above are based on replicate samples greatly reduces the chance that they are accidental in nature. This is lacking in previous studies.

Three conclusions can be drawn from the above results. They are: 1. At least in boreal waters, relatively few taxa perform diurnal migration, 2. depth distributions among oceanic zooplankton are, for the most part on the order of hundreds of meters, and 3. the hydrographic structure, especially in colder waters may influence migrational and distributional patterns. These conclusions, especially the width of distribution and the apparent influence of hydrographic features suggest that Banse (1964) is correct in calling for the examination of hydrography in helping to determine sample placement. It is certain that inadequate forethought was given to sample placement in this study. In particular, no samples were taken within the halocline.

Percentage of Migrators in a Community

Of the 104 taxonomic categories considered in this study, only those in Patterns 1 and 2 demonstrated migration.

Bainbridge (1961) refers to the non-migration of species as aberrant or anomalous. This view is not supported by the present study. Banse (1964) considers the statement that "diurnal migration

is the normal behaviour of pelagic animals". In his review he presents mixed evidence both supporting and rejecting this statement. Previous studies dealing with large numbers of species of a given community are rare and suffer from widely varying sampling methods, data presentation (in some cases no data presented at all) and interpretation of results. Table 2 presents a list of important previous studies along with some pertinent information.

Esterly (1912) found evidence of migration in 16 of 19 species of copepods studied off Southern California. Moore and O'Berry (1957) have described 9 of 16 common copepods as migrators off the Florida coast. The presentation of data does not allow critical analysis of the interpretation in either study. Zalkina (1970) at 4°S Latitude found, at most, only 4 instances of migration among 17 species of cyclopoid copepods. An analysis of Roe's papers (Roe, 1972a, b, c, d) on the calanoid copepods of the SOND Cruise off the Canary Islands shows reasonably certain diurnal migration in 29 of the 139 adequately abundant species. Angel's (1969) ostracod data from the same cruise show 7 of 31 species migrating. Heinrich (1957), studying copepods of tropical affinity in the zone of mixing between subtropical and subarctic water in the western Pacific, found 11 of 20 species migrating. Unfortunately, he gives the reader only a statement to this effect.

All of the above work is from tropical or subtropical areas.
Table 2.

		Taxonomic	Fraction	Width of	
Author	Area	Groups	Migrators	Distributions	Remarks
Angel 1968	Atlantic off Tunisia	Ostracods	See remarks	100m or greater	Reinterpretation of data shows no migrators.
Angel 1969	Atlantic near Azores	Ostracods	7/31	Only 6 with ranges less than 100m	No samples in upper 50.
Esterly 1912	California Current	Calanoid Copepods	16/19	All greater than 100m	Evidence for migra- tion is primarily increased nighttime surface abundance.
Hansen 1951	Oslo Fjord	Calanoid	See remarks	Fjord only 40m deep	Did not study verti- cal migration.
Heinrich 1958	Western N. Pacific	Calanoid Copepods	11/20	10 of 20 with very narrow ranges	Presents no data verbal statements only.
Marumo 1958	E. Subarctic Pacific	Calanoid Copepods chaetognaths	See remarks	All with ranges greater than 100m	Did not study mig ra tion.
Moore and O'Berry 1957	Florida Current	Calanoid Copepods	9/16	All with ranges greater than 100m	Data presented as percentiles.
Petipa et al. 1960	Black Sea	Calanoid Copepods	2/11	Only l species with a narrow range	Descriptive presen- tation of data.
Roe 1972a,b, c,d	Atlantic off Azores	Calanoid Copepods	29/139	Only 15 with distri- butions less than 100m	No samples in upper 50m.
Zalkina 1970	W. Equatorial Pacific	Cyclopoid Copepods	4/17	All with 100-200m ranges	Data presented as 25-75% cores.

Studies of large suites of species from temperate or high latitude waters are rare. Banse (1964) quotes Bogorov (1948 from Beklemeshev, 1957) concerning the non-migration of the characteristic fauna in the upper 100 meters in temperate water. However, the original paper presents no data. Petipa et al. (1960) studying the dominant species in the Black Sea, describe only 2 species of 11 as migrating. Vinogradov (1968) has extensively reviewed vertical distributions and migrations in all the major oceanic areas and observes that "seasonal migrations predominate in cold water regions, while diurnal migrations predominate in the tropics". Our results concur with this statement. It should be pointed out that this conclusion pertains only to the smaller zooplankton, and not to the micronekton.

Width of Vertical Range

Observations made from bathyscaphs have shown apparent peaks of abundance occurring in narrow layers (Banse, 1964). The nature of these layers and their species composition are not known. The present study indicates that most taxa have distributional ranges on the order of hundreds of meters. There may, of course, be peaks too narrow to be seen with the present sampling scheme. Most categories, however, had distributions with major modes of abundance and long tails. The ecological significance of these tails in the vertical range of an animal is not clear. Various authors have described vertical distributions in terms of percent of the vertical total of animals caught. Using particular percentiles (typically 25 and 75%) of the distribution of a population, they describe the position of this population "core". Often, no mention is made of the position or range of the remainder of the population. Typically, even these cores have ranges comparable to the ones found in this study. Zalkina (1970) found ranges of 100 to 200 meters for the cores between 25 and 75% of the cyclopoid populations she studied.

Roe's SOND data show only 10 or 15 species of the 212 studied with vertical ranges less than 100 meters. These species were shallow living forms, similar to Acartia longerimis males in this study (Figure 1b, Appendix 10). Similarly, Angel's (1969) ostracod data indicate 25 or 31 species with ranges greater than 100 meters. Heinrich's (1958) diagrams indicate 10 of 20 species with daytime ranges in the first 25 meters, and the remaining 10 with ranges of 100 meters or more. It is quite possible that the reader does not see the full range, for his diagrams indicate "the level occupied by the main portion of the population". It is also possible that these animals are indeed restricted to the overlying subtropical water described in his study. Petipa (1960) shows 8 of 9 species with wide distributions. Marumo et al. (1958) shows similar results for 12 species of Subarctic Pacific zooplankton. Moore and O'Berry's (1957) results concur. Vinogradov (1968) notes that only the extreme

surface dwellers of the tropical oceans have narrowly restricted ranges.

Influences of Hydrography on Distributions and Migrations

The correlation of distributional limits with strong hydrographic gradients suggests possible limiting effects of these gradients on the distributions and migratory movements of animals.

Bainbridge (1961) states that migration normally brings animals right to the surface. In the present study two patterns appear. Animals of Pattern 1 appear uninfluenced by the thermocline, while the upward movement of those in Pattern 2 appears limited somewhere near the base of the thermocline. Similar results are suggested by previous authors.

Heinrich (1958) describes one group of animals whose diurnal migration is limited below 25 meters by overlying subtropical water and another, living within this subtropical water, whose lower daytime limit is set by the same interface. Petipa et al. (1960) describe in general terms the apparent effects of the thermocline on diurnal migration of two species complexes in the Black Sea. Most migrators were limited to above or below the thermocline in their movements. However, two species were apparently unaffected. Of the 5 migrating species analyzed by Zalkińa (1970), all appear to be affected by the thermocline. Four species have the lower limits of their cores in or above the thermocline, with a fifth penetrating just below it at its day depth, and rising within it at night. An analysis of Angel's (1969) data shows that of 7 apparent migrators, only two did not penetrate the deep, permanent thermocline from below. Examination of Roe's (1971a) copepod data indicates only two species limited by this thermocline, the rest passing through. Vinogradov (1968) cites numerous examples of animals whose diurnal migratory movements are apparently influenced by density discontinuities similar to those present at Station "P". Studies of <u>Calanus finmarchicus</u> (Gunnerus) by various authors (e.g. Clarke, 1934) in the Atlantic have shown that there appears to be variation in the effects of thermoclines on its migratory movements from one study to the next.

Just as migrations may apparently be influenced by hydrography, so the distributions of non-migrators may also be affected. As mentioned above, the results of this study can roughly be interpreted as animals whose distributions are primarily above, in or below the halocline. Vinogradov (1968) in describing the vertical structure of the zooplankton community in the Eastern North Pacific has reported similar groupings relative to the permanent halocline. He points out that in boreal waters at a given time, species groups often center above, in, or below discontinuities. Because of the seasonality of these hydrographic features, the thickness of the various layers changes, and therefore the width of the animal distributions changes. In winter, the prolonged periods of completely isothermal conditions seem to prevent the establishment of groups of species in the surface zone. With the cessation of winter storms, a seasonal thermocline becomes established, and with it a grouping of animals centered above the halocline. This grouping is very similar, both in species composition and distribution to that reported in this study.

A reanalysis of Angel's (1968) ostracod data from off Tunisia indicates patterns of distribution which are perhaps best interpreted as distributional patterns above, in, and below the thermocline. The evidence given in his work for vertical migration is inadequate. Zalkina (1970) describes the vertical distribution of 12 non-migrating species limited above the thermocline, and two limited below. No species appears to be restricted to the thermocline itself. Hansen (1951), studying 14 species of zooplankton, described four types of distribution in Oslo fjord. Species were found which occurred only above, only in, or below a discontinuity, along with a single species whose distribution did not appear influenced by the hydrography. An analysis of Angel's (1969) SOND data indicates five species which live in the surface waters, and seven which live entirely below or above the thermocline. Three species appear to live throughout the water column. Roe's calanoid copepod data for the same cruise present a different picture. There are only 23 species among 214

whose distributions appear to correlate with hydrographic features.

The evidence from the literature then is somewhat mixed, but it appears that hydrographic features may often act as boundaries for the vertical ranges of planktonic animals, both migratory and non-migratory.

In this study we have seen that the vertical distributions of a large number of species of widely varying phylogenetic affinities can be described in terms of relatively few patterns. The correlations between these patterns and hydrographic features suggests that these patterns are, in Hutchinson's (1964) sense, <u>vectorial</u>. That is, that these distributions are determined by external factors. It is suggested that planktonic vertical distributions may be the result of a large number of species reading (exactly which parameters remains unknown) a common environment and that it could be the physical or chemical structure of this environment which determines the vertical distributions of organisms.

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APPENDICES

APPENDICES OF MIGRATIONAL AND DISTRIBUTIONAL PATTERNS

Explanation of abbreviations used

- D₁ Abundance of first day sample
 D₂ Abundance of second day sample
 N₁ Abundance of first night sample
 N₂ Abundance of second night sample
 f. female
 m. male
- cop. copepodite

Appendix l

Figures of Vertical Migration Pattern 1



Appendix 1 Figure 1. Abundance vs. depth for (a) <u>Metridia pacifica</u> females and (b) <u>Candacia</u> <u>columbiae</u> copepodites.



Appendix 1 Figure 2. Abundance vs. depth for (a) <u>Conchoecia magna males and (b) Euphausia pacifica</u>.



Appendix 1 Figure 3. Abundance vs. depth for Sagitta elegans.

Appendix 2

Figures of Vertical Migration Pattern 2





Appendix 3

Figures of Vertical Distribution Pattern A



Appendix 3 Figure 1. Abundance vs. depth for (a) <u>Oithona similis</u> females and (b) <u>Calanus pacificus</u> females.



Appendix 3 Figure 2. Abundance vs. depth for (a) <u>Calanus pacificus</u> males and (b) <u>Calanus pacificus</u> stage V.



Appendix 3 Figure 3. Abundance vs. depth for (a) <u>Calanus plumchrus</u> stage V and (b) <u>Calanus plumchrus</u> stage III.



Appendix 3 Figure 4. Abundance vs. depth for (a) <u>Calanus plumchrus</u> stage II and (b) <u>Calanus plumchrus</u> stage I.



Appendix 3 Figure 5. Abundance vs. depth for (a) <u>Eucalanus bungii bungii</u> males and (b) <u>Eucalanus</u> <u>bungii bungii</u> males stage V.



Appendix 3 Figure 6. Abundance vs. depth for (a) <u>Pseudocalanus</u> sp. females and (b) <u>Pseudocalanus</u> on spp. copepodites.



Appendix 3 Figure 7. Abundance vs. depth for (a) <u>Thysanoessa longipes</u> and (b) All nauplii.



Appendix 3 Figure 8. Abundance vs. depth for (a) <u>Eukrohnia hamata</u> stage I and (b) Immature chaetognaths.



Appendix 3 Figure 9. Abundance vs. depth for (a) Tomopteris sp. and (b) Trochophore larvae.

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Appendix 3 Figure 10. Abundance vs. depth for (a) Oikopleura spp. and (b) Gastropod larvae.



Appendix 3 Figure 11. Abundance vs. depth for (a) Foraminifera and (b) Round eggs.

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Figures of Vertical Distribution Pattern B



Appendix 4 Figure 1. Abundance vs. depth for (a) <u>Oithona similis</u> males and (b) <u>Oithona similis</u> copepodites.



Appendix 4 Figure 2. Abundance vs. depth for (a) <u>Calanus plumchrus</u> stage IV and (b) <u>Eucalanus</u> <u>bungii</u> <u>bungii</u> females.



Appendix 4 Figure 3. Abundance vs. depth for (a) <u>Eucalanus bungii bungii</u> females stage V and (b) <u>Eucalanus bungii bungii</u> stage IV.



Appendix 4 Figure 4. Abundance vs. depth for (a) <u>Eucalanus bungii bungii</u> stages III, II and I and (b) <u>Microcalanus pusillus</u> copepodites.


Appendix 4 Figure 5. Abundance vs. depth for (a) <u>Metridia pacifica</u> copepodites and (b) Unknown copepodites.



Appendix 4 Figure 6. Abundance vs. depth for (a) Amphipod Species A and (b) Euphausiid furcilia.

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Appendix 4 Figure 7. Abundance vs. depth for Medusae.

Figures of Vertical Distribution Pattern C



Appendix 5 Figure 1. Abundance vs. depth for (a) <u>Microsetella</u> rosea and (b) <u>Calanus</u> cristatus stage IV.



Appendix 5 Figure 2. Abundance vs. depth of (a) <u>Euchaeta</u> spp. copepodites and (b) <u>Scolecithricella</u> <u>minor</u> females.



Appendix 5 Figure 3. Abundance vs. depth for (a) <u>Scolecithricella minor</u> males and (b) <u>Scolecithricella minor</u> males and (b) <u>Scolecithricella minor</u> males and (b) <u>Scolecithri</u>







Figures of Vertical Distribution Pattern D



Appendix 6 Figure 1. Abundance vs. depth for (a) <u>Aetideus</u> pacificus females and (b) <u>Aetideus</u> spp. copepodites.





Figures of Vertical Distribution Pattern E



Appendix 7 Figure 1. Abundance vs. depth for (a) Radiolaria and (b) <u>Gaetanus</u> spp. small copepodites.



Appendix 7 Figure 2. Abundance vs. depth for (a) <u>Gaetanus</u> spp. 4 x 2 and (b) <u>Microcalanus pusillus</u> females.

Figures of Vertical Distribution Pattern F



Appendix 8 Figure 1. Abundance vs. depth for (a) <u>Oncaea conifera</u> females and (b) <u>Oncaea conifera</u> males.



Appendix 8 Figure 2. Abundance vs. depth for (a) <u>Oncaea</u> sp. A females and (b) <u>Metridia</u> curticauda $\overset{\sim}{\infty}$ females.



Appendix 8 Figure 3. Abundance vs. depth for (a) <u>Amallothrix inornata</u> females and (b) <u>Haloptilus</u> pseudooxycephalus copepodites.



Appendix 8 Figure 4. Abundance vs. depth for (a) <u>Gaidius</u> cf. <u>variabilis</u> females and (b) <u>Gaetanus</u> spp. ∞ 4 x 3.



Appendix 8 Figure 5. Abundance vs. depth for (a) <u>Spinocalanus</u> spp. copepodites and (b) <u>Isochaeta</u> o<u>ovalis</u> females.



Appendix 8 Figure 6. Abundance vs. depth for (a) <u>Isochaeta ovalis</u> males and (b) <u>Isochaeta ovalis</u> copepodites.



Appendix 8 Figure 7. Abundance vs. depth for (a) <u>Conchoecia alata minor</u> immatures and (b) <u>Con</u>- ω^{∞} choecia skogsbergii immatures.



Appendix 8 Figure 8. Abundance vs. depth for (a) Unidentified mysid and (b) Eukrohnia hamata stage II.





Figures of Vertical Distribution Pattern G



Appendix 9 Figure 1. Abundance vs. depth for (a) <u>Oncaea</u> spp. copepodites and (b) <u>Oncaea</u> conifera copepodites.



Appendix 9 Figure 2. Abundance vs. depth for (a) <u>Calanus plumchrus</u> males and (b) Type III <u>Calanus</u> stage V.



Appendix 9 Figure 3. Abundance vs. depth for (a) <u>Microcalanus pusillus</u> males and (b) <u>Metridia</u> <u>pacifica</u> males.



Appendix 9 Figure 4. Abundance vs. depth for (a) <u>Pleuramamma scutullata</u> males and (b) <u>Hetero-</u> <u>rhabdus tanneri</u> males.



Appendix 9 Figure 5. Abundance vs. depth for (a) <u>Heterarhabdidae</u> small copepodites and (b) <u>Con-</u> <u>choecia skogsbergii</u> females.



Appendix 9 Figure 6. Abundance vs. depth for (a) Very small ostracods and (b) Amphipod Species B.

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Appendix 9 Figure 7. Abundance vs. depth for (a) Amphipod Species D and (b) Amphipod eggs.





Figures of Vertical Distributions of Unknown Affinity



Appendix 10 Figure 1. Abundance vs. depth for (a) <u>Oithona spinirostris</u> copepodites and (b) <u>Acartia</u> longiremis males.


Appendix 10 Figure 2. Abundance vs. depth for (a) <u>Euchaeta</u> sp. adults and (b) Heterorhabdidae 5×3 copepodites.



Appendix 10 Figure 3. Abundance vs. depth for (a) <u>Candacia columbiae</u> females and (b) <u>Limacina</u> - empty shell.



Appendix 10 Figure 4. Abundance vs. depth for (a) Isopods and (b) Globs.

Appendix 11

Complete Data Listing

		OITHO	NA S	SIMILIS C	LAUS	F		
		NIGHT-1		NIGHT-2		0AY-1		DAY-2
10-0	Μ	649382.7(2	2631	362473.3(357)	483333.3(5	22)636	815.9(160)
25	м	696296.3(3	12914	483660.1(185)	284172.7(2	(37)437	735.8(232)
50	M	146030.0(73)	20558.7(46)	30333.3(91) 34	666.7(52)
75	Μ	26333.3(79)	93000.00	93)	1625.9(33) 12	200.4(56)
100	M	2030.0(24)	21600.00	54)	2944.0(92) 1	515.2(20)
200	Μ	1666.7(10)	241.5(16)	752.0(473 5	666.7(19)
300	M	500.0(3)	1006.0(5)	300.0(2)	163.4(1)
400	м	6(6)	915.0(7)	125.01	1)	320.0(2)
500	M	0 (6)	80.00	1)	55 .E (1)	0(0)

		CITHO	INA :	SIMILIS M					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	111111.1(45)	67911.9(66)	65740.7(71):	163184.1(41)
25	Μ	129100.51	61)	33986.9(13)	75539.6(63)	36792.5(39)
50	Μ	11500.0(23)	1340.80	3)	666.71	- 4)	0(0)
75	М	500.0(3)	22300.00	22)	416.71	1 })	251.0(6)
100	м	666.7 (8)	3400.0(17)	640.01	23)	151.5(2)
200	椚	833.3(5)	75.5(5)	576.0(35)	1333.3(5)
300	Μ	ն (0)	400.01	2)	G (C	3)	0 (0)
408	м	. Ú (6)	0 (3)	0(1)	480.81	3)
500	M	6 (0)	6(Q)	0 (1)	0(8)

			01TH	IONA	SIMIL	IS COP		
		NIGH	T-1		NIGH	T-2	0AY-1	DAY-2
10-0	M	234967	.91	95)2	3ú48C.	.3(227)	287037.04313)242786.1(61)
25	M	3365 17	.9(1	59)4	33986	.9(186)	99526.41 83)237735.8(126)
53	Μ	146030	•ú(73)	52737	.4(118)	25000.0(75) 53333.3(8C)
75	M	39000	.0(1	17)1	03060	.0(105)	4666.7(112) 19172.1(88)
103	Μ	12583	.3(1	51)	42800	.0(107)	24544.0(767) 7803.0(103)
200	M	16330	.6 (1	03)	2113	.2(143)	8480.0(53)) 45600.0(171)
300	M	333	.3(2)	27000	.0(135)	300.01 2) 1797.4(11)
+00	Μ	400	•ü (16)	7320	.3(56)	7875.0(63) 7680.0(48)
500	M	64	.0(4)	86	.(1)	277.81 3) 363.6(8)

		CITH	ONA S	SPINIROST	RIS C	LAUS F			
		NIGHT-1		NIGHT-2		0AY-1		DAY-2	
10-0	M	94	D)	C I	8)	0(3)	0 (6)
25	۲	Ú (69	6 (3)	С (33	0 (0)
50	ŧ.	320.0(5)	2502.8(70)	512.0(3)	108.81	17)
75	Μ	768.U(48)	0 (30	64.01	4)	1380.4(33)
100	Μ	132.0(12)	2347.9(32)	64.0(2)	50.9(7)
200		16.01	1)	45.3(3)	C (3)		0)
300	м	6 (0)	6(3)	δ(3)	0(0)
463	Μ	32.01	4)	C (3)	ú (1)	0(0)
500	м	11	(1)	4.0	0)	£ (33	G (0)

		CITH	DNA	SPINIROST	RIS C	0P			
		NIGHT-1		NIGHT-2		DAY-1		0AY-2	
10-0	M	24691.4(15)	0(8)	0(3)	0(0)
25	Μ	Ĉ (6)	0(0)	9(3)	8(0)
50	M	384.6(6)	107.3(3)	895.9(14)	121.6(19)
75	Μ	304.0(19)	256.0(2)	64.0(4)	711.1(17)
100	Μ	48.01	- 3)	512.0(8)	64.0(2)	7.3(1)
200	۲	166.7(1)	ΰť	0)	8(33	8(6)
300	M	Gt	6)	0(8)	0(33	0(0)
400	M	80.01	10)	251.0(12)	500.0(4)	160.0(1)
500	M	Û (ĉ)	176.0(11)	55.6(1)	7.3(1)

		ONC	AEA .	BOREALIS (50	SARS F			
		NIGHT-1		NIGHT-2		DAY-1		0 A Y - Z	
10-0	Μ	6 (()	2030.70	2)	0.(33	11940.3(9)
25	M	45149.9(64)	135947.7(52)	78000.0(73)	87735.8(93)
50	M,	18530.0(37)	10279.3(23)	9166.71	55)	12000.00	18)
75	M	4166.7(25)	12000.00	24)	1166.7(29)	3921.6(1,8)
100	Μ	2583.3(31)	6800.0(34)	3424.0(1	87)	123.61	17)
200	M	2333.3(14)	377+4(25)	1200.0(75)	1600.0(6)
300	M	2000.01	12)	6200.0(31)	2401.0(9)	4085.0(25)
400	Ħ	560.0(14)	2483.7(19)	1875.0(15)	2560.0(16)
500	M	32.01	2)	1360.0(17)	888.9(15)	0(0)

		ONC	AEA	CONIFERA	GIESBR	ECHT F			\$
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0 (8)	- O (13)	0(3)	8 (8)
25	Ħ	θ(0)	0(0)	0(3.)	0(0)
50	M	Û(8)	1787.7(4)	0(3)	0(0)
75	Μ	G (0)	01	3)	0(33	0 (0)
100	м	ί (0)	0.0	0)	0(- 33	-0 (0)
200	м	0 (8)	0 (0)	0.(3) -	0(0)
300	Μ	16.0(1)	96.0(3)	32.0(1)	0(0)
406	M	88.6(11)	146.4(7)	328.01	1))	384.01	12)
500	M	140.0(35)	224.0(14)	352.0(22)	218.2(30)

		ONCAE	A CO	NIFERA M					
		NIGHT-1		NIGHT-2		0AY-1		0 A Y - 2	
10-0	M	0(0)	Ð (8)	9(1)	0(0)
25	Μ	ú (Ð.)	33	9)	-0(3)	.0 (0)
50	۲	£ (0.)	-G (3)	۵ (33	0 (0)
75	Μ	. 01	Ű)		0)	0(3)	Û (0)
190	м	G (Û)	0(3)	Û (33	0(0)
200	м	ũ (ü)	C (3)	0(3)	6 (0)
390	±.	160.01	10)	256.01	8)	192.0(j)	334.6(8)
483	M	32.6(4)	271.9(13)	224.0(7)	320.0(10)
500	м	76.04	19)	304.01	19)	320.01	21)	254.5(35)

NIGHT-1 NIGHT-2 DAY-1 DAY-2 NIGHT-1 NIGHT-2 L	
	JAY-1 DAY-2
	0()) 0(0)
	0()) 0(0)
50 M G(0) D(0) D(0) 50 M G(0) 0(0)	8(3) 8(0)
75 M G(D) G(D) D(D) B(D) 75 M E(D) O(D)	0()) 0(0)
193 M (6) (6) (1) 7,3(1) 100 M ((0) (0)	0(3) 8(0)
200.M G(0) 0(0) 0(0) 200 M 0(0) 0(0)	0(3) 0(0)
303 M 512.6(32) 512.6(16) 224.0(7) 460.1(11) 300 M 0(0) 0(0)	0()) 0(0)
400 M 32.8(4) 125.5(6) 32.0(1) 128.8(4) 400 M 80.6(2) C(0)	0(1) 320.0(2)
503 M 16.0(4) 48.0(3) 64.0(4) 0(0) 500 M 32.0(2) 80.0(1)	0()) 90.9(2)
ONCAFA MEDIA VAR HYMENA DISCN F	
NIGHT-1 NIGHT-2 BAY-1 BAY-2 NIGHT-1 NIGHT-2 F	
10-0 M ((A) ((A) (A) (A) (A) (A) (A) (A) (A) (0(1) 6633-5(5)
	66.7(1) 8(8)
	96.91 3) 14.5(2)
300 M 3666.7(58) 9306.0(49) 11251.1(73) 6535.9(40) 300 M 9666.7(58) 11400.0(57) 160	101.1(72) 26968.8f166)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	75.0(33) 160.0(1)
500 M 735.6(46) 4640.6(54) 566.7(102) 2641.6(59) 500 M 304.0(19) 2001.6(25) 21	66.7(31) 580.0(11)
CNCAEA MEDIA VAR HYMENA M MICROSETELLA ROSEA DANA	
NIGHT-1 NIGHT-2 DAY-1 DAY-2 NIGHT-1 NIGHT-2 U	JAY-1 DAY-2
	0(3) 0(0)
	6()) 483.0(4)
	64.0(1) 64.0(10)
	32.0(2) 669.3(16)
	64+0(2) 0(0)
200 M L(0) 0(0) 0(1) 0(0) 200 M 80.0(5) 45.3(3) 2	272.0(17) 128.0(4)
303 M 18000.0(108) 2340E.0(117) 16501.7(11)) 5392.2(33) 308 M 166.7(1) 0(9)	0()) 653.6(4)
400 M 1640.6(41) 4444.4(34) 5750.0(45) 5280.0(33) 400 M 0(0) 62.7(3) 1	25.0(1) 32.0(1)
500 M 496+0(31) 584(+0(73) 5388+9(97) 2227+3(49) 500 M 4+0(1) 48+0(3)	55.6(1) 0(0)
UNCAEA SP A F	0 SARS
NIGHT-1 NIGHT-2 DAY-1 DAY-2 NIGHT-1 NIGHT-2 D	DAY-1 DAY-2
10−0 ₩ 6(6) 6(3) 8(3) 8(0) 10−0 M 6(0) 6(8)	0()) 0(0)
25 M U(3) U(3) U(3) U(0) 25 M U(0) 0(0)	C()) G(O)
	0()) 0(0)
53 H B(B) 5(3) C(3) D(0) 50 H B(D) C(0)	6(1) 8(8)
50 M D(D) D(D) C(D) D(D) D(D) D(D) D(D) D(D)	
53 M B(B) 5(B) C(B) C(B) D(C) 50 M B(C) C(B) 75 M B(B) B(C) B(C) 75 M C(D) B(B) 198 M D(C) B(C) B(C) B(C) B(C) C(B)	0-()) 0(0)
53 H 0(0) 50 H 0(0) 0(0) 0(0) 75 M 0(0) 0(0) 75 M 0(0) 0(0) 150 M 0(0) 0(0) 75 M 0(0) 0(0) 150 M 0(0) 0(0) 100 M 0(0) 0(0) 200 M 0(0) 0(0) 0(0) 0(0) 0(0)	
50 H 0 (0) 0 (0) 50 M 0 (0) 0 (0) 75 M 0 (0) 0 (0) 75 M 0 (0) 0 (0) 100 M 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 100 M 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 200 M 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 300 M 500.40 (3) 0 (0) 0 (0) 300 M 32.40 (2) 0 (0)	0(1) 0(0) 2(1) 0(0) 32.0(1) 83.7(2)
50 H 0(0) 0(0) 50 M 0(0) 0(0) 75 M 0(0) 0(0) 0(0) 0(0) 0(0) 150 M 0(0) 0(0) 0(0) 0(0) 0(0) 150 M 0(0) 0(0) 0(0) 0(0) 0(0) 150 M 0(0) 0(0) 0(0) 0(0) 0(0) 200 M 0(0) 0(0) 0(0) 0(0) 0(0) 300 M 50.40 3) 0(0) 0(0) 0(0) 400 M 460 M 0(0) 0(0) 0(0)	0(3) 0(8) 0(3) 0(9) 32.0(1) 0(9) 32.0(1) 83.7(2) 96.0(3) 0(9)

	LUBBOCK	IA	CF GLACI	ALIS	COP							CALAN	us c	RISTATUS I	v			4	
	NIGHT-1		NIGHT-2		DAY-1		DAY-2					NIGHT-1		NIGHT-2		0AY-1		DAY-2	
10-0 M	0(0)	0(8)	0(3)	0 (0)	10-	0	M	0(0)	9.0	0)	G (3)	A.C.	6)
25 M	0(0)	0(3)	8(33	0 (0)		5	M	a r	0)	0 (n)		a 1	87	ก่
50 M	Ú (O)	0(0)	9(3)	0(0)		0	M	0 Č	ō)	500.6(1	4)	n c -	81	6.40	11
75 M	0(0)	0(0)	0(3)	0(0)	7	5	M	D (0)	768.0(1	2)	208.0(1	31	289.21	51
100 M	ΰ(O)	6(0)	θ(3)	0(0)	16	0	м	6 C	0)	1151.9(1	8)	416.0(1	31	21.80	31
200 M	0 (0)	0(0)	0(3)	.0 (8)	20	0	M	a c	0)	30.2(4)	0(ai -	64.0(21
300 M	32,6(2)	160.0(5)	0(3)	86	0)	30	Ð	M	D L	Ö)	96.0(3)	D r	3)	D (0)
400 M	0(0)	0(3)	250.01	2)	8 (0)	40	ō	M	D (0)	6(ný –	ů č	11	32.00	. 11
500 M	0 (0)	0.0	3)	0(3)	14.5(2)	50	õ	M	Õ (Ö)	0 (0)	Ő Č	0)	0(Ô

	CALANUS CRISTATUS KRCYER F								CALAN	us c	RISTATUS	TTT						
	NIGHT-1		NIGHT-2		DAY-1		DAY-2				NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 M	0(0)	6 (0)	6(3)	6 (0)	10-0	м	0 (0)	. 0(n 3 ¹	01	41		83
25 M	-G (0)	0(0)	0(1)	0(0)	25	M	B (· D')	8 (0)	n r	45	0,00	0)
50 M	C (0)	8(0)	0(3)	Ű (0)	50	M	0 t	ũ)	Ő C	8)	8 (11	F . M (11
75 M	Û (0)	G (0)	8 (3)	0 (Ö)	75	M	90	0)	256.0(41	16.0(10	334.61	4.81
100 M	÷ (8)	0(0)	0(3)	0(6)	100	м	0(Ö)	64.0(1)	64.0(2)	8(6)
200 M	0(C)	D (3)	0 (3)	0(0)	200	M	Û (0)	0(0)	0 (3)	n c	83
300 M	Ú (0)	0(0)	0(1)	0 (0.)	300	M	8 (0)	0(0)	a c	n	07	ล้า
400 M	Û (0)	20.9(1)	ÛC	3)	0 (0)	408	м	ů (0)		<u>a)</u>	0 (35		อา
500 M	Ŭ (0)	6(0)	6 (1)	7.3(1)	500	м		<u></u>		a.	ů č	35		

	CALANUS CRISTATUS M											CALAN	us c	RISTATUS	II					
	NIGHT-1		NIGHT-2		DAY-1		DAY-2					NIGHT-1		NIGHT-2		DAY-1		DAY-2		
10-0 M	Ο (0)	Ü (3)	0 (1)	0(0)	10-	0 +	м	0(0)	0(0)		15	01	n	
25 M	<u> 6</u> (0)	0 (0)	9(3)	9.0	0)		5 1	M	Ő (0)	ŝ (0)	D (15	00	ň	ú –
50 M	0 (6)	0(0)	0 (3)	0(0)	5	a +	м	0 (0)	Ő (<u>a)</u>	a c	11	n c	ň	ń.
75 M	0 (0)	<u>6</u> (0)	6 ())	. 0.01	0)	7	5 +	м	0 (6)	D C	0)	0(- ii	418.30	10	ñ –
100 M	Ű (C)	Ű (3)	0(3)		0)	10	0 +	м	ũ ť	0)	0(0)	0 (- 35	0 (10	ñ.
200 M	<u></u> ۵(0)	0 (3)	0(3)	0(0)	20	1 0	м	0(0)	0.0	0)	0.0	11	0.6	. ñ	
389 M	θ(0)	0(0)	9(3)	9.0	0)	30	0 1	м	0(0)	0(0)	0 (15		ñ	ñ -
400 M	80(1)	130.70	1)	0(3)	0(0)	40	0 1	м	0 (0)	0 (a	0.0	35		ň	ń.
500 M	G (()	46.0(3)	64.0(+)	43.6(6)	50	Ū N	м	0.0	6)	0.0	0)	0.0	15	n é	័ត	

	CALANUS C	RISTATUS V						CALAN	us c	RISTATUS	I				
	NIGHT-1	NIGHT-2	DAY-1	DAY-2				NIGHT-1		NIGHT-2	-	DAY-1		DAY-2	
10-0 M	C(D),	C(Q)	0())	0(1	C)	10-0	Μ	θ(8)	0(0)	0(3)	0(0)
25 M	0(0)	167.3(2)	0(3)	6(a) 👘	25	M	ΰ(0)	0(2)	0(1)	0(Ū,
50 M	576.ú(9)	286.0(8)	0(3)	01	8)	50	M	Ű (0)		0)	0 (33	6.4(1)
75 ₩	240.0(15)	2176.1(34)	G ())	6(6)	75	M	6 (0)	ΰ(0)	0 (3)	0(0)
106 M	48.ŭ(3)	128.0(2)	0())	0(* 1	0)	100	Μ	0(0)	<u></u> 0(0)	0(33	0(0)
230 M	32(2)	188.7(25)	432.0(27)	0()	0)	200	Μ	ΰ (0)	0(3)	6 (3)	0(0)
300 M	32.0(2)	E(0)	96.0(5)	2175.2(5)	2)	300	M	8(9)	ε(0)	Û (3)	0(0)
400 M	_ ບີ (ບ)	130.7(1)	288.0(3)	640.0(20	0)	400	Μ	0(0)	6 (0)	6(3)	Ű (6)
500 M	67.2(21)	208.0(13)	464.0(23)	87.3(1	2)	500	M	Ũ (0)	0(3)	0(3)	0 (Ū)

	CALANUS	PLUNCHRUS	MARL	JKAWA F							CALAN	IUS I	PLUMCHRUS	III				
	NIGHT-1	NIGHT-2		DA Y - 1		DAY-2					NIGHT-1		NIGHT-2		DAY-1		D A Y - 2	
10-0 M	6(5)	0(8)	6(1)	0(0)		10-0	M	13114.2(64)	8655.8(71)	28703.71	6?)	41905.21	3291
25 M	0(0)	0(0)	0(- 1) '		0)		25	M	52828.611	951	10876.51	65)	18800.07	1.8.1	8694.01	721
50 M	6(0)	ű (0)	<u> </u>	· j)	Ū Č	0)		50	M	2176.01	341	250.31	71	128.07	21	6 4/	121
75 M	6(0)		a b	0.0	. 11	n (0.5		75		236 07	101	10000 7/	851	22.01		0,4(
100 8			ů,		- 11	0.0			100	F1	304.01	731	10000070	0.51	32.01	41		0)
200 M	0(0)								100		16.0(.1)	1087.90	10	32.01	11	14.56	2)
200 14				U L	11				200	M	Ð (0)	22.6(3)	0(3)	0 (0)
300 8	16.0(1)	UC	10	90	1)	8(0)		300	M	G (0)	0 (0)	300.1(1)	6(0)
480 M	8.0(1)	0(0)	0 (1)	8 (0)		400	M	6(0)	6(8)	0(3)	C (0)
500 M	0(C)	G (3)	32.0(23	0(8)		500	M	0 (0)	6(0)	8 ())	0 (0)
	CALANUS	PLUMCHDUS	м															
	NTCHT-1	NTCHT-3	F1	DAV-4							CALAN	05 1	LUNCHRUS	11				
10-0 M	NIGRI-I	NIGHI-2		UAT-1		UAT-2	• •				NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 5	U(U)	60	93	00	. 11	0(0)		10-0	M	5531.2(35)	6217.5(51)	41203.7(83)	8533.9(67)
25 m	0(_0)	0(0)	0(1)	0(0)		25	M	18422.3(68)	167.3(1)	0(9)	-0 (0)
50 M	0(0)	C (0)	0(33	0 (0)		50	M	448.0(7)	71.5(2)	128.0(2)	0 (0)
75 M	Ú(0)	64.0(1)	0(3)	0(0)		75	м	128.01	8)	3584.21	28)	0.0	- ii	0 (0.1
.100 M	0(0)	0(0)	0(. 3)	6 (0)		100	M	0 (01	128.0(21	32.00	- 11	0.	ăí
200 M	66 63	0(Q)	0())	448.0(14)		200	M	51	0)	7.5(41	0.000	11		
300 M	1264.6(79)	960.0(3.11	n (11	1254.91	301		200			6.5	1.50		200 47		0(
400 M	0 (6)	1960.87	151		11	616 01	1 2 1		300		UL		U (300.10	- 17		()
500 M	6 (0)	112 84	71			410.0(137		400		UC		00		90	- 30	0(0)
200		112.000	.,			U L	0,		201	n	80	03	. U C	U)	UC	11	0 (0)
	CALANUS	PLUMCHRUS	v								CALAN	US F		T				ŝ
	NIGHT-1	NIGHT-2		DAY-1		DAY-2					NTGHT-1		NTGHT=2	-	DAV-1		DAY-2	
13-0 M	6953.5(44)	23529.1(1	93)	19.8(2)	5222.21	611		10-0	м	1.079 7/	7 \	4754 61	201	44444 47		7744 7/	26.
25 M	1896.4(7)	669.31	41	4668.64		603.8(- E)		10-0	- F1 - Ma	4930.3(31	4/24+0(391	11111.1(437	3311.70	201
60 M		670 44	465	466 74	11	40.04	27		25		7043.00	201		U.).	UL	11	943.4(1)
75 M	460 07 40	572.10	101	100.10		12.80	21		50	M	256.0(4)	71.50	2)	64.0(D	0(0)
13 F	160.00 10)	2048.10	16)	80.00	2)	334.6(8)		75	M	Ω(0)	128.0(1)	0(3)	334.6(8)
100 m	U (U)	1023.90	16)	32.0(1)	189.1(15)		100	M	0(G)	0(0)	0(- 1)	0(0)
200 M	288.0(18)	7.5(1)	32.6(2)	352.0(11)		200	M	Ð (0)	30.2(4)	6 (3)	0(0)
300 M	144.0(9)	320.0(10)	0())	83.7(2)		300	M	0(6)	0(8)	660.2(2)	0 (0)
400 M	ΰ(Ε)	1176.5(9)	6 (1)	160.0(5)		400	м	£ (0)	B (0)	0 (- ii	n (0.5
500 M	0(0)	80.0(5)	C (33	6 (0)		500	M	0 C	C)	0(0)	0(35	0(0)
			•					1										
	CALANUS	PLUMCHRUS	T A								TYPE	III	CALANUS	/				
	NIGHT-1	NIGHT-2		DAY-1		DAY-2					NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-3 M	9956.2(63)	7686.5(63)	404.9(41)	29932.3()	235)		18-0	M	6 (0)	0(3)	ōc	11	5 (0.)
25 M	15934.1(59)	10207.20	61)	38000.0(33)	37798.60	313)		25	M	541.81	21		0.5	1000 01			0.
50 M	1471.9(23)	1108.4(31)	64.0(1)	12.8(2)		50	M	541.00	2	0 (0,7	2000-01			0,
75 M	736.0(46)	7424.51	58)	32.01	23	125.5/	3)		70	L.	0 U	0/	79/. 0/	رن د ک	04+01		U	
106 M	192.0(12)	1791.01	281	64.64	21	16.57	21		19	m H		10	354+01	6,	U C	1)	0(U)
250 M	192401 127	1171020	207	46 67	4.7	14.5(21		100	M	53.3(1)	00	- 93	0(- 33	36.4(5)
200 1		22.00	31	10.0(11		01		200	M	528.0(33)	5.0(1)	560.0(35)	64.0(2)
300 M	5 (C)	3∠•0€	1)	0(1)	0(C)		380	м	496.0(31)	320.0(10)	768.0(2+)	1422.2(34)
400 M	u(D)	0 (0)	9(1)	6(0)		400	M	50	0)	1307.2(10)	288.0(3)	320.0(10)
500 M	3.2(1)	6 (a)	0(1)	0(0)		500	Μ	Û (0)	48.0(3)	160.0(1))	0 (0)
														-				

		CALAI	NUS	PACIFICUS	BRCC	SKII F			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	2686.6(17)	7192.8(59)	9.9(1)	1783.2(14)
25	м	541.8(2)	0(3)	1000.0(1)	128.8(1)
50	Μ	192.0(3)	0(0)	6 (3)	8 (0)
75	M	£ (0)	320.0(5)	0(3)	0(0)
18û	M	Û (0)	192.0(3)	0(3)	0(8)
200	м	0(0)	5.0(1)	6 (3)	0(0)
300	Μ	6 (0)	0 (6)	0(3)	0 (0)
436	M	. (0)	D (0)	0(1)	0(0)
500	м	6(0)	6 (0)	0 (1)	0(0)

		CALAN	105	PACIFICUS /	4				
		NIGH T-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	1106.2(7)	2804.0(23)	G (1)	1401.1(11)
25	M	812.8(3)	836.5(10)	2000.0(2)	362.3(3)
50	۲	64+0(.1)	8 (0)	0(3)	0(0)
75	Μ	υ (6)	192.0(3)	0())	С (0)
100	M	C (Ú)	64.0(1)	0(1)	0(6)
200	м	ů (0)	10.1(2)	16.0(D	6 (0)
330	м	0(6)	0 (0)	1056.0(33)	6 (0)
400	M	Ű (S)	. 0(3)	125.0(1)	0 (0)
500	Ħ	6 (6)	8 (0)	192.8(12)	0(8)

		CALANUS	PACIFICUS	V				
		NIGHT-1	NIGHT-2		0 A Y - 1		DAY-2	
10-0	Μ	1422.3(9)	1584.9(13)	9.9(1)	1019.0(8)
25	Μ	2739.2(10)	592.0(3)	1000.0(1)	120.8(1)
50	Μ	128.0(2)	6 (0)	6 (1)	6(6)
75	۲	80.0(5)	576.0(9)	16.0(Ð	41.8(1)
100	M	48.0(3)	90	0)	32.0(1)	21.8(3)
200	Μ	32.9(2)	20.10	4)	16.0(1)	£4.0(2)
300	м	1+4.0(9)	192.00	5)	128.0(4)	251.0(6)
400	Μ	46.0(5)	1176.5(9)	125.ü(1)	96.0(3)
500	м	37.6(18)	67	33	64.61	• •	29.11	4)

		CALANU	S	PACIFICUS	YOUN	G COP			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	6(0)) – Ű(3)	231.5(1)	0(0)
25	м	5 (C 1) 0(6)	1000.00	1)	0(0)
5 û	Μ	ΰ (61) (0)	6(1)	Ó (8)
75	Μ	Ů (Ð 1	0 0 (0)	41.7(1)	0(0)
105	M	£ (61)	8)	3(1)	0(8)
200	M	Ú (61) U (9)	Û (3)	0(0)
300	۲	ΰ(81) 0(0)	0(1)	0(6)
4 ú Ū	M	Ű (0)) 0 (0)	Q (1)	C (0)
500	м	÷ (ė)) a (3)	9.(1)	8 (6)

		EUC		JS BUNGII	GIES	BRECHT F			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	948.2(6)	6 (3)	0 (3)	0(0)
25	М	0(0)	4517.9(27)	1000.00	1)	1086.9(9)
50	М	2431.8(38)	429.1(12)	256.0(4)	185.6(29)
75	м	1264.0(79)	1664.1(13)	288.0(19)	1213.1(29)
100	м	1488.6(93)	1791.9(28)	896.0(23)	290.9(48)
200	м	16.0(1)	37.7(5)	80.0(3)	192.0(6)
300	M	5 (0)	96.0(3)	0(3)	0(0)
400	Μ	G (0)	261.4(2)	128.0(4)	64.0(2)
500	м	0(0)	0(0)	0(3)	0(0)

		EUCALANUS NIGHT-1	BUNGII M Night-2	DAY-1	DAY-2
10-0	M	1580.3(10)	609.6(5)	8(3)	127.4(1)
25	M	1354.6(5)	2677.3(16)	3000.0(3)	6279.6(52)
50	м	2687.8(42)	464.8(13)	320.0(3)	140.8(22)
75	M	512.0(32)	384.0(3)	48.0(3)	1715.0(41)
100	м	96.0(6)	192.0(3)	448.0(1+)	36.4(54
200	м	128.0(8)	83.0(11)	80.0(5)	160.0(5)
300	М	64.0(4)	288.0(9)	288.0(3)	460.1(11)
400	М	88.0(11)	653.6(5)	192.0(j)	160.0(5)
500	Μ	ΰ(C)	32.0(2)	112.0(7)	0(0)

		EUCALANU	S BUNGII	FV				ś
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	Μ	474.1(3)	0 (0)	Ű (3)	127.4(1)
25	м	278.9(1)	4015.9(24)	3000.0(3)	5192.8(43)
50	M	3647.8(57)	822.3(23)	1855.9(23)	224.0(35)
. 75	Μ	832.0(52)	1536.1(12)	448.0(23)	2258.8(54)
100	M	192.0(12)	768.0(12)	416.0(13)	145.5(20)
200	м	384.0(19)	45.3(6)	320.0(2))	192.0(6)
300	м	544.0(34)	96.0(3)	768.0(24)	376.5(9)
400	м	8.0(1)	261.4(2)	160.0(j)	128.0(4)
500	Μ	ί(ΰ)	32.0(2)	64.0(4)	0(0)

		EUCAL	ANUS	BUNGII M	V				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	790.2(5)	243.8(2)	0(3)	0(0)
25	Μ	ε.	6)	836.7(5)	2000.0(2)	6521.2(54)
50	M	256.0(4)	107.3(3)	1215.9(19)	128.0(20)
75	Μ	96.0(6)	640.0(5)	144.0(3)	669.3(16)
100	M	32.0(2)	128.0(2)	32.0(1)	21.8(3)
200	M	E4.G(4)	22.E(3)	32.0(2)	C (6)
300	M	288.0(18)	0(0)	256.0(3)	0(0)
400	M	56.0(7)	392.2(3)	96.0(3)	0(0)
500	M	0(0)	ε(0)	Û (3)	Q (0)

	ELICALA	SIL									PSFUDO	ALANHS SP	008		
	NTCHT-4	ino s	NTCUT-3	v			DAX-S				NICHTAL	NTCHT-	2	DAV-1	044-2
40.0 M	NIGHTEL	• •	NIGHI-Z		UAT-1	11	041-2	• •	10-0	*	5367.17 33	110001	1 971	67 0/ 7)	1040 C/ 4EV
10-0 -	e (0,	4001 04	61			2808 7/	263	25	na Ma	2167 7/ 8	1 2175 7	1 1 7	403401 27	1910+0(19)
25 1	430 67	23	1004.01	67	E40 04	11	2050+31	241		ar ar	120.01 3)) <u>21</u> /9+3	(13)	- TIGOO+O(II)	3762+1(29)
90 m	120.0(21	32.01	11	215.01	37	12+01	61	75	M	220401 0	., 256 A	(2)	04eU(14	
/5 m	120.01		250.11	21	70 01		251.00	67	400			1 25010	1 41		
100 5		01	64.00	11	32.01	17	7.30	17	200	111 M		1) 04•0 1) 60 6		3266(1)	703(1)
200 M	16.00	11	00	3)	32.00	- 22		(1)	200	81 M	90+UL 3	0/ 22.0			
360 M	80.00	5)	0(0)	90	- 37	41.8(1)	300	т: м	2000011		(0)	415.0(13)	83.7(2)
400 M	5 (0)	80	0)	6 (3)	64+0(2)	400	п м		167.3	(8)	32.00(1)	96.0(3)
560 M	ul	63	Ű	3)	ü (11	Ű	()	500	r 1	4.0()	.,	())	10.0(1)	
	EUCALA	NUS	BUNGIT C	OP							MICROCA	LANUS PUS	ILLUS	SARS F	
	NIGHT-1		NIGHT-2		DAY-1		0 A Y - 2				NIGHT-1	NIGHT-	2	DAY-1	DAY-2
10-0 *	158.0(1)	0(0)	0())		0)	10-0	M	158.0(1) 0	(0)	0(1)	0(0)
25 M	Ú (0)	1673.30	10)	0(j)	3139.8(26)	25	м	66 0)	(0)	0())	0(0)
50 M	512.0(6)	143.0(4)	640.0(1)	89.6(14)	50	M	6 (0) 0	(8)	0(1)	0(0)
75 M	272.0(1	.7)	128.0(1)	144.0(3)	711.1(17)	75	M	6 (0) 0	(0)	0(3)	0(0)
100 M	112.0(7)	256.0(4)	64.04	2)	14.5(2)	100	M	0 (0) 0	(0)	96.0(3)	0-(0)
200 M	32.0(2)	0.0	0)	16.0(1)	8 (0)	200	M .	3000.0(18) 528.3	(35)	4400.0(275)	3466.7(13)
300 M	272.6(1	.7)	32.0(1)	96.0(3)	376.5(9)	300	M	333.3(2) 880.0	(4)	0(3)	1307.2(8)
400 M	8.Ü(1)	522.9(4)	96.0(3)	6(Ö)	406	M	760.0(19) 1960.8	(15)	1750.0(1+)	2720.0(17)
500 M	с (0)	16.0(1)	48.0(3)	0(0)	500	м	16.0(1) 1120.0	(14)	500.0(3)	318.2(7)
	Est upo			r							мтероси	ANUS DUS	571119	с м -	
	FSEUDO	DCAL	ANUS SF.	F							MICROCA	LANUS PUS	SILLU	S M -	
	FSEUDO NIGHT-1	CAL	ANUS SF. NIGHT-2	F	DAY-1		0AY-2		: : :		MICROCA NIGHT-1	LANUS PUS	SILLU:	S M DAY-1	DAY-2
10-0 M	FSEUDO NIGHT-1 3634.5(2	CAL /	ANUS SF. NIGHT-2 3047.8(F 25)	DAY-1 925.9(+)	0AY-2 636.9(5)	10-0	M M	MICROCA NIGHT-1 0 (0	LANUS PUS NIGHT-) 0	SILLU: 2 (0)	S M DAY-1 D())	DÅY-2 0(0)
10-0 M 25 M	FSEUDO NIGHT-1 3634.5(2 312.8() CAL / 23) 3)	ANUS SF. NIGHT-2 3047.8(1506.0(F 25) 9)	DAY-1 925.9(1000.0(+) 1)	DAY-2 636.9(845.3(5) 7)	10-0 25	M M	MICROCA NIGHT-1 0 (0 0 (0	LANUS PUS NIGHT-) 0) 0	SILLU: 2 (SM DAY-1 0(3) 0(3)	D&Y-2 0(0) 0(0)
10-0 M 25 M 50 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1	CAL / 23) 3) 11)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(F 25) 9) 2)	DAY-1 925.9(1000.0(256.0(+) 1) +)	DAY-2 636.9(845.3(19.2(5) 7) 3)	10-0 25 50 75	M M M	MICROCA NIGHT-1 0 (0 0 (0 5 (0	LANUS PUS NIGHT-) 0) 0) 0	SILLU: 2 (0) (0) (0)	SM DAY~1 0()) 0()) 0())	S-YAC (0)0 (0)0 (0)0 (0)0
10-0 M 25 M 50 M 75 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1	CAL / 23) 3) 11)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(F 25) 9) 2) 3)	DAY-1 925.9(1000.0(256.U(16.0(+) 1) +) 1)	DAY-2 636.9(845.3(19.2(209.2(5) 7) 3) 5)	10-0 25 50 75	M M M	MICROCA NIGHT-1 0 (0 0 (0 0 (0 0 (0	LANUS PUS NIGHT-) 0) 0) 0) 0	SILLU 2 (0) (0) (0) (0)	SM DAY-1 0(3) 0(3) 0(3) 0(3)	S-YAC (0)0 (0)0 (0)0 (0)0 (0)0
10-0 M 25 M 50 M 75 M 100 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(23) 3) 11) 10) 3)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(F 25) 9) 2) 3) 3)	DAY-1 925.9(1000.0(256.0(16.0(64.0(+) 1) +) 1) 2)	DAY-2 636.9(845.3(19.2(209.2(7.3(5) 7) 3) 5) 1)	10-0 25 50 75 100	M M M M	MICROCA NIGHT-1 0 (0 0 (0 0 (0 0 (0 0 (0 0 (0 0 (0	LANUS PUS NIGHT-) 0) 0) 0) 0) 200.0	SILLU 2 (0) (0) (0) (0) (1)	SM DAY=1 0(3) 0(3) 0(3) 0(3) 0(3)	D&Y-2 0(0) 0(0) 0(0) 0(0) 0(0)
10-0 M 25 M 50 P 75 M 100 M 230 H	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(80.6(23) 3) 11) 10) 3) 5)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.0(192.0(30.2(F 25) 9) 2) 3) 3) 4)	DAY-1 925.9(1000.0(256.0(16.0(64.0(+) 1) +) 1) 2) 4)	DAY-2 636.9(845.3(19.2(209.2(7.3(0(5) 7) 3) 5) 1) 0)	10-0 25 50 75 100 200	M M M M M	MICROCA NIGHT-1 0(0) 0(0) 0(0) 0(0) 166.7(1)	LANUS PUS: NIGHT-) 0) 0) 0) 0) 0) 0) 200.0) 0) 0 0	SILLU 2 (0) (0) (0) (1) (0)	S M DAY-1 0(3) 0(3) 0(3) 0(3) 0(3) 0(3) 0(3)	S-YAQ (0)0 (0)0 (0)0 (0)0 (0)0 (0)0 (0)0
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(80.6(96.0(23) 3) 11) 10) 3) 5) 6)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.0(F 9) 2) 3) 3) 4) 9)	DAY-1 925.5(1000.0(256.0(16.0(64.0(800.0(+) 1) +) 2) 23)	DAY-2 636.9(845.3(19.2(209.2(7.3(0(251.0(5) 7) 3) 5) 1) 0)	10-0 25 50 75 100 200 300	M M M M M	MICROCA NIGHT-1 0 (0 0 (0 0 (0 166.7 (1 1500.0 (5	LANUS PUS: NIGHT-) 0) 0) 0) 0) 0) 200.0) 200.0) 200.0) 0) 4600.0) 4600.0	SILLU 2 (0) (0) (0) (1) (0) (23)	S M DAY-1 0()) 0()) 0()) 0()) 1500.2(1) 4500.2(1)	DAY-2 C(0) C(0) C(0) C(0) C(0) C(0) 3594.8(22)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(80.6(96.6(8.6(23) 3) 11) 10) 5) 6) 1)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.0(62.7(F 25) 29) 2) 3) 4) 9) 3)	DAY-1 925.9(100C.0(256.0(64.0(64.0(800.0(64.0)	+) 1) +) 1) 2) 23) 23)	DAY-2 636.9(845.3(19.2(209.2(7.3(0(251.0(64.0(5) 7) 3) 5) 1) 0) 6) 2)	10-0 25 50 75 100 200 300 400	M M M M M M M M	MICROCA NIGHT-1 0(0 0(0 0(0 166.7(1 1500.0(9 440.0(1)	LANUS PUS NIGHT-) 0) 0) 0) 200.0) 200.0) 0) 4600.0) 1699.3	SILLU 2 (0) (0) (0) (1) (23) (13) (5)	S M DAY-1 0()) 0()) 0()) 0()) 1500.2(1) 1500.2(1)	DAY-2 0(0) 0(0) 0(0) 0(0) 0(0) 3594.8(22) 1600.0(10)
10-0 M 25 M 75 M 100 M 200 M 300 M 400 M 500 M	FSEUDO NIGHT-1 3634.5(2 312.8(7J4.0(1 160.0(1 48.0(80.6(96.0(8.6(8.0(23) 3) 11) 10) 5) 6) 1) 2)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.C(62.7(32.0(F 25) 2) 3) 3) 4) 3) 3) 3) 2)	DAY-1 925.9(1000.0(256.0(64.0(64.0(64.0(64.0(64.0(64.0(+) 1) +) 2) 23) +) +)	DAY-2 636.9(845.3(19.2(209.2(7.3(0(251.0(£4.0(0(5) 7) 3) 5) 1) 0) 6) 2) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M M M M M	MICROCA NIGHT-1 0 (0 0 (0 0 (0 0 (0 166.7 (1 1500.0 (9 440.0 (11 6 (0	LANUS PUS NIGHT-) 0) 0) 0) 0) 0) 0) 200.0) 200.0) 200.0) 200.0) 200.0) 200.0) 200.0) 200.0	SILLU 2 (0) (0) (0) (1) (23) (13) (5)	S M DAY-1 0()) 0()) 0()) 0()) 1500.2(1) 1500.0(12) 500.0(3)	DAY-2 C(0) C(0) C(0) C(0) C(0) 3594.8(22) 1600.0(10) C(0)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M 400 M 500 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(80.6(8.6(8.0(8.0(8.0(DCAL / 23) 3) 1) 10) 5) 5) 5) 1) 2) DCAL /	ANUS SF. NIGHT-2 3047.0(1506.0(71.5(384.0(192.0(30.2(62.7(32.0(ANUS SF M	F 25) 2) 3) 3) 4) 3) 3) 2)	DAY-1 925.9(1000.0(256.0(64.0(64.0(800.6(64.0(64.0(+) 1) +) 2) 25) +)	DAY-2 636.9(845.3(19.2(209.2(7.3(0(251.0(64.0(0(5) 7) 3) 5) 1) 0) 6) 2) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M M	MICROCA NIGHT-1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 166.7 (1500.0 0 9 440.0 (1 500.0 0 9 440.0 (1 500.0 0 9 440.0 0 1 500.0 0 500.0 0000000000000000000000000	LANUS PUS NIGHT-) 0) 0) 0) 0) 200.0) 200.0] 200	SILLU 2 (0) (0) (0) (1) (23) (13) (5) ILLUS	S M DAY-1 0()) 0()) 0()) 0()) 1500.2(1) 1500.0(12) 500.0(3) COP	DAY-2 C(0) C(0) C(0) C(0) C(0) 3594.8(22) 1600.0(10) C(0)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M 400 M 500 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(80.6(96.6(8.6(8.6(8.6(8.6(8.6(8.6(8.6(DCAL / 23) 3) 1) 1) 5) 6) 1) 2) DCAL /	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.0(32.0(ANUS SF M NIGHT-2	F 25) 2) 3) 3) 4) 9) 3) 2)	DAY-1 925.9(1000.0(256.0(64.0(64.0(64.0(64.0(64.0(64.0(+) 1) +) 2) 23) 23) +)	DAY-2 636.9(845.3(19.2(209.2(7.3(0(251.0(64.0(0(DAY-2	5) 7) 3) 5) 1) 0) 2) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M	MICROCA NIGHT-1 0 (0 0 (0 0 (0 0 (0 166.7 (1 1500.0 (9 440.0 (11 0 (0 MICROCA NIGHT-1	LANUS PUS NIGHT-)) 0) 0) 0) 200.0) 200.0] 200.0] 200.0] 200.0	SILLU 2 (0) (0) (1) (23) (13) (13) (5) ILLUS 2	S M DAY-1 0(3) 0(3) 0(3) 0(3) 0(3) 1500.2(1) 1500.0(3) 500.0(3) COP DAY-1	DAY-2 0(0) 0(0) 0(0) 0(0) 0(0) 3594.8(22) 1600.0(10) 0(0) 0(0)
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10-0 M 25 M 50 M 75 M 220 M 220 M 300 M 400 M 500 M 10-0 M 25 M 500 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 160.0(1 48.0(80.0(96.6(8.0(8.0(8.0(8.0(96.6(8.0(8.0(160.01) 160.01) 160.01 160.	CAL/ 23) 3) 11) 100 3) 5) 6) 1) 2) 0CAL/ 0) 0) 0) 0) 0) 0) 0) 0)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.C(62.7(32.0(ANUS SF M NIGHT-2 121.9(167.3(C(L(F 25) 2) 3) 3) 3) 3) 2) 1) 1) 0) 0) 0)	DAY-1 925.9(1000.0(256.0(64.0(64.0(64.0(64.0(64.0(0(0(0(0(+) 1) +) 1) 2) 2) +) 1) 1) 1) 1) 1) 1) 1)	DAY-2 636.9(845.3(19.2(209.2(7.3(251.0(64.0(0(0(0(0(0(0(5) 7) 3) 5) 1) 0) 2) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 560 10-0 25 50 75		MICROCA NIGHT-1 0(0 0(0 0(0 0(0 166.7(1 1500.0(9 440.0(11 0(0 MICROCA NIGHT-1 0(0 0(0 4000.0(61 4333.3(52	LANUS PUS NIGHT-) 0) 0) 0) 0) 0) 200.0) 200.0) 4600.0) 1699.3) 4600.0) 1699.3) 4000.0) 15521.9) 20111.7) 14000.0) 4000.0	SILLU 2 (0) (0) (0) (1) (23) (23) (23) (13) (5) ILLUS 2 (1) (33) (45) (28)	S M DAY-1 0()) 0()) 0()) 0()) 0()) 1500.2(1) 1500.0(12) 500.0(3) COP DAY-1 0()) 23333.3(14)) 3503.3(65) 4000.0(125)	DAY-2 0(0) 0(0) 0(0) 0(0) 0(0) 3594.8(22) 1600.0(10) 0(0) 0(0) 15094.3(16) 78000.0(117) 34771.2(133) 1515.2(20)
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10-0 M 25 M 50 M 100 M 200 M 300 M 400 M 500 M 250 M 250 M 75 M 100 M 250 M 250 M	FSEUDO NIGHT-1 3634.5(2 312.8(704.0(1 48.0(80.6(96.0(8.6(8.6(8.6(8.6(8.6(0(NIGHT-1 6(0(6(6(0(0(0(0(0(0(0(DCAL/ 23) 3) (1) (1) (2) 5) 6) 1) 2) DCAL/ 0) (1) (2) 0) (3) (3) 0) 0) 0) 0)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.0(62.7(32.0(32.0(NIGHT-2 121.9(167.3(167.3(0,0) 0,0) 0,0) 0,0) 0,0) 0,0) 0,0) 0,0	F 25) 3) 3) 4) 9) 3) 2) 1) 1) 0) 0) 0) 0) 0)	DAY-1 925.9(1000.0(256.0(64.0(64.0(64.0(64.0(64.0(64.0(64.0(64.0(64.0(0(0(0(0(0(0(0(0(0(0(0(0(0	+) 1) 1) 2) 4) 25) +) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	DAY-2 636.9(845.3(19.2(205.2(251.0(64.0(0(0(0(0(0(0(0(0(0(5) 7) 3) 5) 1) 6) 2) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500 500 500 75 100 200 300	M M M M M M M M M M M M M M M M M M M	MICROCA NIGHT-1 0 (0 0 (0 0 (0 0 (0 0 (0 166.7 (1 1500.0 (9 440.0 (1) 1500.0 (9 440.0 (1) 0 (0 MICROCA NIGHT-1 0 (0 0 (0 0 (0 0 (0 166.7 (1) 1500.0 (9 40.0 (0 160.0 (1) 1500.0 (LANUS PUS NIGHT-) 0) 0) 0) 200.0) 200.0) 200.0) 200.0) 200.0) 1699.3) 460C.0) 1699.3) 400C.0) 20111.7) 1400C.0) 558.5) 1160C.0	SILLU 2 (0) (0) (0) (1) (23) (23) (23) (5)	S M DAY-1 0()) 0()) 0()) 0()) 0()) 1500.2(1) 1500.0(3) 500.0(3) COP DAY-1 0()) 23333.3(14)) 3583.3(85) 4000.0(125) 3936.0(245) 10651.1(71)	DAY-2 0(0) 0(0) 0(0) 0(0) 3594.8(22) 1600.0(10) 0(0) 0(0) 3594.8(22) 1600.0(10) 0(0) 15094.3(16) 15094.3(16) 15094.3(16) 1515.2(20) 1332.3(5) 8169.9(50)
10-0 M 25 M 75 M 220 M 220 M 300 M 400 M 500 M 25 M 75 M 100 M 200 M 200 M 300 M	FSEUDO NIGHT-1 3634.5(2 312.8(7J4.0(1 160.0(1 80.0(80.0(96.0(8.0(8.0(8.0(8.0(0) NIGHT-1 0(0) U(U(0) U(0) U(U(0) U(U(U(0) U(U(U(U(U(U) U(U(U(U(U(U) U(U(U(U(U(U) U(U(U(U(U(U) U(U(U(U(U) U(U(U(U(U) U(U(U(U(U) U(U(U(U(U) U(U(U(U(U(U) U(U(U(U(U(U) U(U(U(U(U(U) U(U(U(U(U(U(U(U(U(U(U(U) U(U(U(U(U(U(U(U(U(U(U(U(U(OCAL/ 23) 3) (1) 3) 5) 6) 1) 2) OCAL/ 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ANUS SF. NIGHT-2 3047.8(1506.0(71.5(384.6(192.0(30.2(286.0(62.7(32.0(ANUS SF M NIGHT-2 121.9(167.3(C(C(C(C(C(C(C(C(C(C))))))))))	F 25) 9) 2) 3) 4) 9) 3) 2) 1) 1) 0) 0) 0) 0) 0) 0) 0)	DAY-1 925.9(1000.0(256.0(64.0(64.0(64.0(64.0(64.0(64.0(64.0(64.0(0(0(0(0(0(0(0(0(0(0(0(0(0	+) 1) 1) 2) 4) 2) +) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	DAY-2 636.9(845.3(19.2(209.2(251.0(64.0(0(0(0(0(0(0(0(0(0(0(0(0(0	5) 7) 3) 5) 1) 0) 6) 2) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500 10-0 25 50 75 100 200 300 400	MHMMMMMMM 62 1	MICROCA NIGHT-1 0(0 0(0 0(0 0(0 166.7(1 1500.0(9 440.0(11 8(0 MICROCA NIGHT-1 0(0 4000.0(64 4333.3(52 3333.3(52 3333.3(52 3333.3(52 3333.3(52) 3333.3(52) 3333.3(52)	LANUS PUS NIGHT-) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	SILLU 2 (0) (0) (0) (23) (23) (23) (1) (23) (1) (23) (23) (23) (40) (28) (28) (28) (37) (56)	S M DAY-1 0()) 0()) 0()) 0()) 1500.2(1) 1500.0(3) 500.0(3) COP DAY-1 0()) 23333.3(14)) 3583.3(85) 4000.0(125) 3936.0(245) 10651.1(71) 5125.0(41)	DAY-2 0(0) 0(0) 0(0) 0(0) 0(0) 3594.8(22) 1600.0(10) 0(0) 0(0) 3594.8(21) 1600.0(10) 0(0) 15094.3(16) 7800C.0(117) 34771.2(133) 1515.2(20) 1333.3(5) 8169.9(50) 8169.9(50)

	SPIN	CCALA	NUS LONG	ISPIN	US BRODSK	II F					AETIDI	us	PACIFICUS	F				
10- 0 M	NIGHI-1		NIGHI-2	• •	UAY-1	••	DAY-2	• •	4.0.		NIGHT-1	••	NIGHT-2	•	DAY-1	• •	DAY-2	
10-0 M		0)	5		UC		UC		10-0	- F 1		0,	0(0)	0(- 11	0(0)
23 1	5 L 0 A	u) 0)	50	0)		- 33	00	0)			60	0)	60	0)		3)	0 (0)
20 F	L (0)	U (0)	00	1)	0(0)	20	11 1	9 U U	0)	0(8)	0(1)		0)
100 M	U (0,		0,			0(0)	13	· •			00	11	U C	31	0(0)
200 1		0)	U L	0)	5		0(0)	100	E M	104 • U (4)	64.U(1)	0(3)	90	0)
200 8	0(61	72 01	10	U (50	0)	200	 		0,	30.21	61	16.00	11	32.0(11
		51	32+01			37	UC	03			0(0)	54.0(2)	U L	33	U (0)
- 400 M	40.00	2)	20.91	1)	70.0(37	50 00	107	400		01	0)	UC	0)	U (- 11	32.0(1)
500 11		.,	04.01	4)	32.00(27	20.91	0			5(0,	ut		Ū	1)		U)
	SFING	CALA	NUS LONG	ISPIN	US M						AETIDI	υs	SP COP					
	NIGHT-1		NIGHT-2		DAY-1		DAY-2				NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 M	Ū (0)	0(0)	0(1)	0(0)	10-0	M	6 (0)	0(0)	0(3)	0(0)
25 M	C (6)	8 (.	0)	0(3)	0(Ö)	25	M	Ο (0)	. 0(8)	8 (3)	6 (0)
50 M	6(0)		0)	0(3)	0(0)	50	M	Ũ (8)	0(0)	0(33	0 (0)
75 M	Ð (0)	0(0)	8 (3)	0(Ö)	75	м	0(0)	0 (0)	0(3)	0(0)
100 M	9(6)	<u>)</u> 0(3)	0(3)	Ű (Ö)	100	M	96.0(6)	256.0(4)	. 0(3)	7.31.	1)
200 M	6 (6)	0(0)	6 (3)	6(()	200	M	16.0(1)	0(0)	- O (3)	32.0(1)
30 0 m	0 (6)	416.00	13)	0 (3)	0 (0)	300	M	6 (0)	0(0)	0(3)	0(0)
400 M	ΰ(Û)	0(0)	0 (1)	0 (0)	400	M	0(0)	0(0)	6 (3)	0(0)
500 M	0 (0)	0(<u>(</u> 0)	ΰ(3)	0 (0)	500	M	6 (0)	0(0)	C (3)	0(0)
	SPING	CALA	NUS CF LO	NGIC	ORNIS SAR	SF					AETIDE	OPS	IS SP P					
	SPINO NIGHT-1	CALA	NUS CF LO	NGIC	ORNIS SAR DAY-1	SF	DAY-2				AETIDE NIGHT-1	OPS	IS SP F NIGHT-2		DAY-1		DAY-2	
10-0 M	SPIN(NIGHT-1 6(CALA ()	NUS CF L(NIGHT-2 D(NGIC 0)	ORNIS SAR DAY-1 D(S F 3)	DAY-2 0 (0)	10-0	м	AETIDE NIGHT-1 0 (0PS 0)	IS SF F NIGHT-2 0(0)	DAY-1 0(3)	DAY-2 0 (0)
10-0 M 25 M	SPIN(NIGHT-1 G(C(CALA () ()	NUS CF L(NIGHT-2 3(C(0NGIC 0) 3)	0RNIS SAR DAY-1 D(0(S F 3) 3)	DAY-2 0 (0 (0) 0)	10-0 25	M	AETIDE NIGHT-1 0 (0 (0PS 0) 0)	IS SF F NIGHT-2 0(0(0) 0)	DAY-1 0(0(1)	DAY-2 0 (0 (0) 0)
10-0 M 25 M 50 M	SPIN(NIGHT-1 G(C(G(CALA () () () ()	NUS CF L(NIGHT-2 D(C(D(DNGIC 0) 0) 0) 0)	ORNIS SAR DAY-1 D(0(0(SF 3) 1) 3)	DAY-2 0(0(0) 0) 0)	10-0 25 50	M M M	AETIDE NIGHT-1 0(0(0(0PS 0) 0) 0)	IS SF F NIGHT-2 0(0(0(0) 0) 0)	DAY-1 0(0(1) 1) 3)	DAY-2 0 (0 (0) 0) 0)
10-0 M 25 M 50 M 75 M	SPINC NIGHT-1 () () () () () () ()	CALA 0) 0) 0) 0)	NUS CF 10 NIGHT-2 0(0(0(DNGIC 0) 0) 0) 0) 9)	ORNIS SAR DAY-1 D(0(0(0(S F 1) 1) 1) 1)	DAY-2 0(0(0(0) 0) 0)	10-0 25 50 75	M M M	AETIDE NIGHT-1 0(0(0(0((OPS () () () () ()	SIS SP P NIGHT-2 0(0(0(0(0(0) 0) 0) 0)	DAY-1 0(0(0(ú(1) 3) 4) 1)	0 A Y-2 0 (0 (0 (0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M	SPINC NIGHT-1 G(C(G(G(G(S(CALA () () () () () ()	NUS CF 10 NIGHT-2 0(0(0(0(DNGIC 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(SF))))))))	DAY-2 0(0(0(0(0) 0) 0) 0)	10-0 25 50 75 100	M M M	AETIDE NIGHT-1 0(0(0(0(0(0PS 0) 0) 0) 0) 0)	IS SF F NIGHT-2 0(0(0(0(0(0) 0) 9) 0) 0)	DAY-1 0(0(0(0(1) 3) 4) 1) 3)	2 - Y A Q 0 (0 (0 (0 (0 (0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M 200 M	SPIN(NIGHT-1 6(6(6(6(0(CALA () () () () () () ()	NUS CF 10 NIGHT-2 0(0(0(0(0(DNGIC 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(0(0(S F 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0) 0) 0) 0) 0)	10-0 25 50 75 100 200	M M M M M	AETIDE NIGHT-1 0(0(0(0(0(0PS 0) 0) 0) 0) 0) 0)	TIS SF F NIGHT-2 0(0(0(0(0(0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(1) 3) 3) 1) 3) 3)	DAY-2 0 (0 (0 (0 (0 (0 (0) 0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M	SPINC NIGHT-1 6(6(6(6(0(0(CALA () () () () () () () ()	NUS CF 10 NIGHT-2 0(0(0(0(0(0(0(DNGIC 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(0(32.0(SF)))))))))) 1)	DAY-2 0(0(0(0(0(0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300	M M M M M	AETIDE NIGHT-1 0(0(0(0(0(0(0PS 0) 0) 0) 0) 0) 0) 0)	SIS SF F NIGHT-2 0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(3) 3) 3) 3) 3) 3) 3) 3) 3) 3)	DAY-2 0(0(0(0(0(0(0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 100 M 200 M 305 M	SPINC NIGHT-1 C(C(G(G(C(C(C(C(C(C(C(C(C(C(C(C(C(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 3(6(5(0(0(0(0(0(0(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(SF))))))))))))))))	DAY-2 0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400	M M M M M	AETIDE NIGHT-1 0(0(0(5(0(0(0(0PS 0) 0) 0) 0) 0) 0) 0)	TIS SF F NIGHT-2 0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(1) 2) 2) 2) 2) 2) 2) 2) 2)	S-YAQ 30 30 30 30 30 30 30 50 50 50	0) 0) 0) 0) 0) 0) 0) 1)
10-0 M 25 M 75 M 100 M 200 M 305 M 400 M	SPINC NIGHT-1 6(6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(C(C(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(5(S F 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M M M M	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0PS 0) 0) 0) 0) 0) 0) 0) 0)	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(1) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2)	DAY-2 0(0(0(0(0(32.0(0(8) 8) 8) 6) 6) 6) 1) 9)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M 500 M	SPINC NIGHT-1 6(6(6(6(0(0(0(0(0(0(5)))))))))))))))))))	CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 3(0(0(0(0(0(0(0(0(0(0(NUS COF	ONGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(0(0(S F 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M M M	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0PS 0) 0) 0) 0) 0) 0) 0) 0)	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3)	DAY-2 0(0(0(0(32.0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M 500 M	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(1) 1) 1) 1) 10 10 10 10 10 10 10 10 10 10 10 10 10	CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(C(NUS COF NIGHT-2	DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(32.0(0(32.0(0(32.0(S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(a) a) a) a) a) a) a) a) a)	10-0 25 50 75 100 200 300 400 500	医胃胃下痢疾病	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0(0PS 0) 0) 0) 0) 0) 0) 0)	ETIDEIDAE NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(0(3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3)	DAY-2 0(0(0(0(32.0(0(32.0(0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 200 M 300 M 500 M	SPINC NIGHT-1 6(6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(NUS COF NIGHT-2 G(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(0(0(0(04Y-1 0(S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M M M M M M	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0(COPS C) C) C) C) C) C) C) N A C)	TS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2)	DAY-2 0(0(0(0(32.0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 200 M 300 M 400 M 500 M 10-9 M 25 M	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(C(C(C(C(NUS COF NIGHT-2 O(C(C(C(C(C(C(C(C(C(C(C(C(C(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500	M M M M M M M M M M M M M M M M M M M	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0((OPS ()) ()) ()) ()) ()) ()) ()) ()) ()) ()	TIS SP F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2)	DAY-2 0(0(0(0(32.0(0(32.0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 100 M 200 M 305 M 500 M 10-9 M 50 M	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(C(C(C(NUS COF NIGHT-2 G(G(G(C(C(C(C(C(C(C(C(C(C(C(C(C(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(32.0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	S F)))))))))))))))))))	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500 10-0 25 50	N N N N N N N N N N N N N N N N N N N	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(NIGHT-1 0(0(0((OPS ()) ()) ()) ()) ()) ()) ()) ()) ()) ()	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(32.0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	0) 0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 755 M 200 M 200 M 300 M 500 M 10-9 M 25 M 50 M 75 M	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(NUS COF NIGHT-2 B(G(C(C(C(C(C(C(C(C(C(C(C(C(C(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(32.0(0(5(0AY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(S F 3) 1) 3) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	10-0 25 50 75 100 200 300 400 500 500 10-0 25 50 75	NAMANANAN MANAN	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0((OPS () () () () () () () () () ()	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2)	DAY-2 0(0(0(0(32.0(32.0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 200 M 200 M 300 M 400 M 500 M 10-0 M 500 M 500 M 100 M 100 M	SPINC NIGHT-1 6(6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(NUS COF NIGHT-2 G(G(C(G(G(G(G(G(G(G(G(G(G(G(G(G(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(5(0AY-1 C(5(0(0(0(0(0(0(0(0(0(0(0(0(0(S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	10-0 25 50 75 100 200 300 400 500 500 10-0 25 50 75	NAMANANAN MAMANA	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0((OPS () () () () () () () () () ()	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3) 3	DAY-2 0(0(0(0(32.0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	0) 0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 75 M 100 M 200 M 300 M 400 M 500 M 10-9 M 50 M 50 M 50 M 25 M 20 M	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(C(C(NUS COF NIGHT-2 O(C(C(C(C(C(C(C(C(C(C(C(C(C(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	10-0 25 50 75 100 200 300 400 500 500 500 500 75 100 25 50 75	MENEMENE EFERM	AETIDE NIGHT-1 0(0(0(0(0(0(0(NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0((OPS G) O) O) O) O) O) O) O) O) O) O	IS SP F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	DAY-2 0(0(0(0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 100 M 200 M 200 M 500 M 500 M 500 M 50 M 50 M 50 M 50	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CCALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(NUS COF NIGHT-2 G(G(G(G(G(G(G(G(G(G(G(G(G(DNGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	10-0 25 50 75 100 200 300 400 500 500 500 75 100 200 250 75 100 200 300	NENERAL ENEREMENT	AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0((OPS G) O) O) O) O) O) O) O) O) O) O	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	DAY-2 0(0(0(0(32.0(32.0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)
10-0 M 25 M 755 M 200 M 200 M 200 M 200 M 500 M 250 M 250 M 250 M 250 M 200 M 200 M	SPINC NIGHT-1 6(6(6(0(0(0(0(0(0(0(0(0(0(0(0(0(CCALA () () () () () () () () () ()	NUS CF L(NIGHT-2 G(G(G(C(C(C(NUS COF NIGHT-2 D(G(C(G(C(C(C(C(C(C(C(C(C(C(C(C(C(ONGIC 0) 0) 0) 0) 0) 0) 0) 0) 0) 0)	ORNIS SAR DAY-1 0(0(0(0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	S F 1) 1) 1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	10-0 25 50 75 100 200 300 400 500 500 10-0 25 50 75 100 200 300 400		AETIDE NIGHT-1 0(0(0(0(0(0(0(0(0(0(0(0(0((OPS () () () () () () () () () ()	IS SF F NIGHT-2 0(0(0(0(0(0(0(0(0(0(0(0(0(0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0) 0	DAY-1 0(0(0(0(0(0(0(0(0(0(0(0(0(1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1	DAY-2 0(0(0(0(32.0(32.0(0(0(0(0(0(0(0(0(0(0(0(0(0	0) 0) 0) 0) 0) 0) 0) 0) 0) 0)

		GAIO.	IUS	CF VARIAB	ILIS	M			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Ħ	0(0)	0 (0)		3)	0(0)
25	M	ΰ(0)	0(0)	0(3)		0)
50	М	0(0)	0(0)	0(33	0(8)
75	M	Q (0)	0(8)	0(3)	0(0)
100	M	0((0)	0(0)	0(3)	0(: 0)
200	M	0(0)	0(0)	0(11	0(8)
300	M	6(0)	8(8)	0 (33	8(0)
400	M	6 (0)	0(0)	0(33	32.0(1)
500	M	6 (0)	B (0)	0(3)	9 (6)

		GAETA	NUS	CF SIMPL	EX .BRI	DOSKII F			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	Ŭ (0)	. 0(0)	0(33	0(0)
25	M	0 (0)	0(G) .	0(3)	19 C	8)
50	M	0 (0)	8 (3)	0(3)	· 6 C	8)
75	M	96.0(6)	704.0(11)	. 0(33	8(0)
100	M	176.0(11)	128.0(2)	0(j)	Ō (Ö)
200	M	16.0(1)	45.3(9)	0(3)	8(0)
300	M	16.0(1)	32.0(1)	0(3)	86	0)
400	M	0(0)	0(0)	0(33	224.01	7)
500	M	6(0)	0 (a)	16.0(1)	ß (*	8

		GAETANUS	CF SIMPLEX	(M		3
		NIGHT-1	NIGHT-2		DAY-1	DAY-2
10-0	Μ	0(0)	6(0)	0(3)	0(0)
25	м	0(0)	0(0)	0(* 0)	0(0)
50	Ħ	Ú(Q)	0(0)	0 (3)	0(0)
75	М	0 (0)	0(0)	0(3)	0(0)
100	Μ	ΰ(C)	0(0)	0(3)	0(0)
200	Μ	0(0)	0(0)	8())	0(0)
300	M	0(0)	0(0)	8())	0(0)
400	M	0(0)	0(0)	0())	0(0)
500	Μ	0(0)	0(0)	0(3)	7.3(1)

	GAIDI	US C	F VARIABI	LIS	BRODSKII	F			· ·		GAETA	NUS	CF SIMPLE	хм	v			
	NIGHT-1		NIGHT-2		DAY-1		0 A Y - 2				NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 M	0(0)	6 (3)	9 (1)	0(0)	10-0	M	0(0)	0(9)	0(3)	Ū (0)
25 M	ΰ(0)	0(0)	0 (D	6 (0)	25	M	0 (C)	0(a)	0.0	1)	0 (
50 M	0(0)	0(0)	0())	0(0)	50	M	6 (0)	0(0)	0 (1)	ũ ć	Ő)
75 M	Ĺ(8)	G (3)	6(33	0(0)	75	M	0 (0)	0 (0)	00	- ii	0 (0)
100 M	Ű (0)	0(0)	0(1)	0(0)	100	M	<u></u> (0)	0(ຄົ້	0 (1)	0 (0)
200 M	0(0)	Û(0)	C (1)	0(0)	200	M	Ű (ũ)	0 (ōĵ	0 C	- 1)	ů č	0)
300 M	30.0(5)	64.6(2)	0(1)	0(0)	300	M	6 (Ó)	0(0)	G (3)	0 (0)
400 M	8.0(1)	0(0)	64.0(2)	96.0(3)	400	м	8.0(1)	0(0)	D (1)	0(0)
500 M	Û (ί)	16.0(1)	0 (1)	0(0)	500	Μ	0(G)	16.0(1)	0 (1)	Ċ (0)

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		GAETA	NUS	SP 4X3							EL	CHA	ETA	SPAF			
		NIGHT-1		NIGHT-2		DAY-1		0AY-2			NIGHT	-1		NIGHT-2		DAY-1	
10-0	M	ΰ(6)	0(0)	0(3)	0(0)	10-0	M	0(0)	. 0(8)	0(3)
25	M	G (0)	0(8)	0(3)	0(0)	25 1	м	01	0)	9(O)	0(22
50	M	. 3(C)	0(0)	0(1)	0(0)	50 1	4	0(C)	0(0)	0 (1)
75	M	Ű (0)	0(0)	0 (3)	0(0)	75 1	4	51	0)	Ū (ū)	0(1)
100	M	0(0)	0(0)	0(3)	0(0)	100 t	4	0(ū)	a c	0)	a (1)
200	м	6(6)	0(0)	0(3)	0(0).	200 +	4	οi	- 01	Õ (0)	ů č	- 11
300	M	32.0(2)	32.0(1)	8())	41.8(1)	300 1	4	0.0	0)	0 (0)	6 (1)
400	Μ.	8.0(1)	62.7(3)	0 (3)	0(0)	400.1	4	0(0)	0 (0)	n (1)
500	Μ	0(0)	0 (0)	0(3)	0(0)	500 1	1	0(0)	ŌĊ	0)	ů (n

	GAETANUS	SP 4X2								EUCHA	ETA	SPP ADULT	s				
	NIGHT-1	NIGHT-2		DAY-1		DAY-2				NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 M	U(D)	0(0)	0(3)	0(0)	10-0 *	4	158.0(1)	0(0)	0(3)	0(8)
25 M	0(0)	0(3)	S (3)	0(0)	25 f	4	0(0)		0)	0(32	8 (Ö)
50 M	0(0)	0.0	0)	0())	0(0)	50 🕈	1	64.01	1)	0(0)	0(3)	0 C	8)
75 M	0(0)	0(0)	0(3)	0(0)	75 N	4	0(0)	0(0)	0 (3)	0 C	0)
100 M	ΰ(Ο)	0(0)	0 (3)	0(0)	100 +	4	83.3(1)	0(Ö)	0 (j)	Ű C	4)
200 M	240.0(15)	52.8(7)	80.0(3)	0(0)	200 +	4	16.0(1)	0(0)	0 (33	0(6)
300 M	G(O)	160.0(5)	0 (3)	502.0(12)	300 M	4	32.0(2)	0(0)	0(3)	Ū (0)
400 M	8.0(1)	20.9(1)	64.0(2)	32.0(1)	400 1	4	6(0)	20.9(1)	32.0(1)	0(0)
500 M	0(0)	0(0)	96.0(3)	0(0)	500 1	4	13.3(5)	0(0)	32.0(2)	7.30	1)

		GAET	ANUS	SP SMALL	COF				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
13-0	м	C (0)	0(0)	0())	0(0)
25	M	ΰ(0)	0(0)	0(3)	0(0)
50	M	Ü (0)	0(0)	0())	G (0)
75	M	- G C	9)	0(0)	С (1)	0(0)
100	M	3 3	0)	6 (0)	0())	0(0)
200	M	224.0(14)	120.8(16)	0())	0(0)
300	Μ	112.6(7)	384.0(12)	1088.0(34)	0(0)
400	M	ί(0)	62.7(3)	0())	32.0(1)
500	M	0(0)	0(a)	0 ())	0(0)

		EUCHAE NIGHT-1	TA	JAPONICA NIGHT-2	MARUI	AWA F Day-1		DAY-2		
10-0	M	0 (6)	0(0)	0(1)	0(0)	
25	M	Û(0)	6.0	0)	0 (i)	0 (0)	
50	м	0(ĉ)	13.4(3)	ŌĊ	1)	0(0)	
75	м	0((3	192.01	3)	6 (1)	0(6)	
100	M	Û (a)	6(0)	Ū (11	0(0)	
200	M	6(0)	0(0)	0(1)	0(0)	
389	M	Θ(0)	0(0)	Ó (j)	6(0)	
400	M	Ü (65	0(3)	0(1)	32.0(1)	
500	M	Û (()	0(0)	0 (33	0(Ú)	

		EUCHAETA	SPP COP					ŝ
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	0 (0)	8(3)	0(0)
25	M	0(0)	0(. 0)	0 (1)	0 (0)
50	M	192.0(3)	71.5(2)	0(1)	0(0)
75	H	144.0(9)	113.5(2)	16.0(1)		0)
100	м	320.0(20)	0(0)	0(1)	94.5(13)
200	M	96.0(6)	105.7(14)	112.0(7)	64.0(2)
300	M	176.0(11)	64.0(2)	384.0(12)	125.5(3)
400	M	104.0(13)	125.5(6)	352.0(11)	320.0(10)
500	M	40.0(15)	304.0(19)	96.0(5)	101.8(14)

		LCFHO	THRI	X FRONTAL	ISC	GIESBRECHT	F		
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	м	0(0)	0(3)	.0())	0(0)
25	м	Û (0)	6(0)	0 (1)	0(8)
50	м	6(0)	6 (0)	6 (3)	0(0)
75	M	0(0)	0(0)	0(3)	0(0)
100	М	. 0(0)	0(3)	0 (3)	0 (0)
200	M	0(0)	5.0(1)	0(1)	0(0)
300	M	16.0(1)	0 (0)	0())	0(0)
400	М	ΰ(0)	0(0)	8(37	0 (0)
500	Μ	2.7(1)	0(0)	16.0(1)	0(0)

109

DAY-2 0(0) 0(0) 0(0) 0(0) 0(0) 0(0) 64.0(2) 0(0)

	LUPH	HOTHE	RIX FRONT/	ALIS	COP							RACO	VITZ	NUS PACI	FICUS	M			
	NIGHT-1		NIGHT-2		DA Y - 1		DA Y-2					NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10 -0 M	0(0)	Ū (0)	8())	0(0)		10-0	M	6(0)	0(0)	. 0 (1)	0(0)
25 M	0 (0)	6(0)	0(3)	0(0)		25	M	0(6)	0(0)	0.(`	3)	0(0)
50 M	0(0)	6 (9)	0(3)	0(0)		50	M	Û (0)	0(3)	0(3)	6 (0)
75 M	ບໍ່ (0)	6 (0)	. 0(3)	8(0)		75	M	0(Q)	0(8)	0(3)	8(0)
100 M	0(0)	50	0)	0(3)	0 (0)		100	M	288.0(18)	959.9(15)	64.0(2)	109.10	15)
200 M	0(0)	6 (0)	0(3)	0(0)		200	M	16.0(1)	75.5(15)	0(3)	224.0(7)
300 M		6)	200.01	1)	G (1)	0(0)		300	M	0 (0)	64.01	2)	Ő Č	- 11	81	e).
400 M	8.0(1)	20.91	1)	0.0	1)	32.00	1)		400	M	Ő (6)	0.0	n j	n (ii.		0.5
500 M	0(6)	0(0)	0(ij	0(O)		500	M	0 (0)	0 (0)	0 (j)	ů č	0)
	AMALI	отня	TX TNORN	ATA F	STERLY							SCOL	CTT-						
	NTGHT-1		NIGHT-2		047-1							NTGHT=1		NTGHT-2		DAY-1		044-2	
10-0 M	01	63	P(51	0, 1	11	001 07	0.1		10-0	м	158-01	43	N10111-2	0.5	041-1		041-2	٥.
25 M	6 (0.1	-0.0	ມ) ມາ		- 37	ñ í			25		190.0(- 65	876 71	5)		11	.0(U/ 0\
53 M	0 (5.0	01	0 (11	0 (0)		50	M	A05.01	1.63	620.11	1 2 1	720 07	2)	32 0/	5
75 M	61	61		ai	0 (- 11	07	0.5		76	- 11 - 14	690 04	201	70/ 0/	4	320:01	57	776 61	21
100 M	5 (01	0(0)	0(11		0,		100	M	400.00	507	304.01	5)	30.01		334+01	0/
280 M	6.0	65	0(0,	0(- 11	0.0	0,		200	EL M	112.0/	7	320.00	21	290.01	33	69.91	37
200 11		0,	0(0)		17		0,		200	171 Ma	72.0(22+01	31		33		
390 M	9 0 1	4.1	62 7/	71	4 35 67	- 11	<u> </u>	2)		300	174 M	32.00	2)	90.01	31				
400 H	6.01		72 61	37	122+01	11	64.01	2)		400	111 Mai		0)	02+11	37	32.00	11	96.01	37
900 P	51		32.00	21	3.4	.,				900	F 1				,	10.01	17	Ű	0)
	AMALL	LOTHR	IX INORNA	ATA C	OP							SCOLE	CITH	RICELLA	INOR	M			¢
	NIGHT-1		NIGHT-2		DAY-1		- 0AY-2					NIGHI-1		NIGHT-2		DAY-1		DAY-2	
10-0 1	Ú (6)	6 (3)	C (1)	0(0)		18-8	M	0(6)	0(0)	0 (3)	0 (0)
25 M	6(C)	0(0)	0(3)	0 (0)		25	M	0(0)	0(0)	0 (3)	0 (0)
50 M	6(3)	<u></u> (0)	0(Ð	0(0)		50	M	128.0(2)	286.0(8)	0(3)	12.8(2)
75 M	6 (Q)	0(0)	0.0	3)	0(0)		15	M	89.0(5)	0(0)	0(3)	167.3(4)
100 M	0(0)	8 (0)	0(3)	0(0)		100	M	0 (0)	64.0(1)	0(3)	0(0)
260 M	0(0)	0(0)	0(3)	0(0)		200	M	0(0)	0(0)	0 (3)	0(0)
300 M	Q (ů)	6(0)	0(Ð	0(0)		300	M	ü (0)	- 0(0)	- B C	3)	0(8)
400 M	24+0(3)	83•7(4)	Û (3)	64.0(2)		400	M	0 (0)		0)) O (1)	0(0)
500 M	0(0)	0(0)	0(3)	0(0)		500	M	ŭ (0)	0(0)	0 (1)	0(0)
	RACO	VITZ	NUS PACIE	FICUS	ESTERLY	F			,			SCOLI	CITH	RICELLA	DV AT A	FARRAN			
	NIGHT-1		NIGHT-2		DAY-1		0AY-2					NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 M	0(8)	Ű (0)	6(3)	0(0)		10-0	м	0 (6)	0(0)	0(1)	0(0)
25 M	ΰ(6)	D (0)	0 (1)	0(0)		25	м	0 (0)	0 (0)	Ő (1)	0(a)
50 M	L (0)	01	0)	C (1)	0(6)		50	M	G (0)	ů (0)	0 (15	Ő Č	8)
75 M	48+0(3)	768.0(12)	41.7(1)	0(0)		75	м	Ď Ć	ū)	0 (a)		10	, i c	- n x
100 M	544.0(34)	1279.9(20)	224.00	7)	567.30	78)		100	M	0.4	0)	ñ (0)	0 (11	0,	n.
200 M	Û (6)	16.16	2)	16.0(1)	0(0)		200	M	16.00	ĩ	ňč	n)		- iii	0,0	ล้า
300 M	16.00	1)	128.0(4)	<u></u> 0 (1)	83.7(2)		300	M	1 3	a)	ñċ	a)	32.01	1)	0,	ai
410 M	δť	63	8(۵)	6 (1)	0(0)		400	M	Ē (č)	6 (<u>0</u>)	00(15	n c	0.5
500 M	6.0	ŝ)	6.0	0)	D (- ii	n c	a)		500	M	a c	6)	16.00	ň	Ďč	n	7.31	11
												5 (5.			- '

	SCOL	ECIT	HRICELLID	AE COI	P						METRIDIA	PACIFICA IV		
	NIGHT-1		NIGHT-2		DAY-1		DAY-2				NIGHT-1	NIGHT-2	DAY-1	DAY-2
10-0 (M ü{	Q)	0(0)	0 (1)	0(0)	10-0	M	9956.2(63)	7558.6(62)	9.9(1	1146.3(9)
25 1	M Q(0)	0 (3)	G (1)	0(8)	25	5 M	55267.0(204)	7529.9(45)	453237 4 (371	43396.21 23)
50 1	M 256.C(4)	1465.9(41)	64.0(1)	83.2(13)	50	3 M	2175.9(34)	4862.E(136)	640.0(1)	179.2(28)
75 1	M 1056.0(66)	384.0(3)	96.0(ŝ)	585.E(14)	75	M	1632.0(102)	7680.5(60)	384.0(24)	543.8(13)
100 1	M 192.00	12)	831.9(13)	352.0(11)	109.1(15)	100	M	592.0(37)	3583.8(56)	896.0(21	181.8(25)
200	M 576.0(36)	60.4(8)	544.0(3+)	192.0(6)	200	I M	160.0(10)	128.3(17)	224.8(14)	160-0(5)
300	M 160.0(10)	896.0(28)	192.0(5)	6 (0)	300	M	2592.0(162)	2976.0(93)	3520.0(113	1589.5(38)
400 1	M · 8(0)	313.7(15)	64.0(2)	0(0)	400	M	0(0)	439.2(21)	160.0(5)	352.0(11)
500 I	M 64.0(16)	128.0(8)	16.0(1)	0(0)	500	M	0(0)	400.0(25)	0(3)	
	NETO		DACTETCA	0000										
	NTCHT-1	TOTA	NTCHT-2	0.00							METRIDIA	PACIFICA III		
10-0 1	NIGHI-I	21	NIGH1-2	0.1	UAT-1	• • •	UAT-2	• •			NIGHT-1	NIGHT-2	DAY-1	DA Y-2
25 1	M 310+1(0.3	502 0/	6)		17	0(0)	10-0	M	6637.5(42)	4145.0(34)	0()	3311.7(26)
50 1		151	71.57	4.1	61.01			0,	25	m	75940.4(284)	18406.4(110)	0())	81132.1(43)
75 1	M 288.67	1.61	668.01	71	04.01	17	01	0,	50	M.	3711.8(58)	7758.7(217)	0(3)	57.6(9)
100 1	M 32.6(21	64.01	11	0(11		0)	75	M	2752.0(172)	9856.6(77)	0())	167.3(4)
200 1	M 5000		10.10	21	80.01		67	n'i	100	m	544.0(34)	8767.4(137)	0(3)	87.3(12)+
1001	M 16.00	11	10.10	61	00.00	-11	0.0	0,	200	1	32.0(2)	67.9(9)	0())	96.0(3)
698 1	M Sef	- 65	41.81	21	160.01	51	32.01	1)	300	- m	32.0(2)	160.0(5)	0())	0(0)
500 1	M 28.04	71	48.01	3)	32.01	2)	21 81	3)	400	1 M 1	8.0(1)	167.3(8)	0())	32.0(1)
500 1	20.01		-0.01	., r	32.001	د ۲	CT+01	51	500	- M	0(0)	0(0)	0())	0(0)

					••	~~~~	÷.		
75	Μ	288.0(18)	448.0(7)	0())	6 (0)
100	м	32.0(2)	64.0(1)	0(1)	0(0)
200	Μ	0(0)	10.1(2)	80.0(5)	6(0)
300	М	16.0(1)	0(0)	0(- 30	0(0)
400	M	U (()	41.8(2)	160.0(5)	32.0(1)
500	M	28.ü(7)	48.0(3)	32.0(2)	21.8(3)

		METRI	IDIA	PACIFICA	M				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	ə (6)	е (8)	8(33	0 (6)
25	Μ	0(Ū)	6(0)	Ð ())	0(0)
50	м	Û (0)	6(3)	128.0(2)	0(8)
75	Μ	Q (0)	0.(0)	16.0(1)	0 (0)
100	м	D C	0)	G (0)	8 (33	0(0)
200	M	ΰ(()	6(0)	8 (3)	0(0)
300	M	6(0)	0(-Q)	32.0(1)	0(0)
400	M	8.0(1)	188.2(9)	256.0(3)	256.0(8)
500	M .	158.51	371	304.01	191	128.01	33	174.51	241

		METRIDIA	PACIFICA	V				
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	M	5689.3(36)	8168.11	67)	8())	127.4(1)
25	Μ	23027.9(85)	1338.6(8)	Û ())	19811.3(21)
50	Μ	1087.9(17)	643.6(18)		3)	E.4(1)
75	Μ	544.0(34)	1408.1(11)	Û (3)	920.3(22)
100	м	48.ü(3)	1343.9(21)	G ())	87.3(12)
200	M	96.ú(6)	7.5(1)	£ (3)	128.0(4)
300	M	1920.0(120)	1344.01	42)	0(3)	502.0(12)
401	м	38.ü(11)	376.5(13)	0 ())	384.01	12)
500	Μ	28.0(7)	464.0(29)	û (3)	50.9(7)

		METRIDIA NIGHT-1	PACIFICA NIGHT-2	II	DAY-1		DAY-2	ŕ
10-0	M	2212.5(14)	365.7(3)	0 (3)	1528.5(12)
25	M	51203.3(189)	4444.4.4 (17)	Ū (3)	94339.E(50)
.5 0	M	2943.8(46)	1340.8(3)	· 0 C	3)	12.8(2)
75	M	1360.0(85)	1920.1(15)	0(3)	125.5(3)
190	M	320.0(20)	5066.0(25)	0(3)	36.4(5)
200	Μ	0(0)	30.2(4)	0 (1)	0(0)
300	Μ	0(0)	0(0)	0(3)	9(0)
400	Μ	Ű(* 0)	20.9(1)	· 0 (3)	.0 (0)
500	Μ	0(0)	6 (3)	9(3)	0(0)

		METRI	IDIA	PACIFICA	I				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
13-0	Μ	C (6)	121.9(1)	.0 (1)	764.2(6)
25	М	16255.0(60)	67973.9(26)	6(1)	19811.3(21)
53	м	2431.8(38)	0(3)	0 (3)	0(Ū)
75	Μ	480.0(36)	2506.0(5)	0.0	1)	0 (0)
199	M	32.0(2)	1406.0(7)	0(- 1)	0(8)
200	M	Û (6)	0 (0)	0(33	0 (0)
300	M	0(£)	0(8)	0 (3)	0.0	0)
400	Μ.	9(6)	6 (3)	0(3)	8 (0)
500	Ħ	6 (9)	ε(Û)	C (1)	0(Ū)

		METRI NIGHT-1	DIA	CURTICAUDA	GI	ESBRECHT	F	DAY-2				ISOCHA	ETA	OVALIS (GIESB	RECHT F			
10-0	M	61	0.1		0.5	<u>.</u>	11	0/1. 0/	0.5	10.0	м	MIGHT-I	~ `	N10111-2		UAT-1		UAT-2	•••
10 0						U 1				10-0	m	ι.	U,	Ųι	0)		- 11	Q C	
25	M	Ũ (0)	0(0)	0(1)	. 0(0)	25	M	9(0)	0(9)	0 (1)	0(0)
50	M	0(0)	6(0)	6(3)	0(0)	50	M	9 (0)	6.	0)	0.0	11	0.0	
75	M	6(6)	0(0)	Û (3)	0(0)	75	м	ũ (6)	0.0	0.5	n i	11	0(
100	M	0(0)	0(0)	0 (1)	0 (0)	100	M	0(0)	ů (0)	Ű.	j)	ů (0)
200	M	0(0)	0(3)	0(3)	0(0)	200	н	0 (0)	0(0)	0(3)	0(8)
330	M	00	(J	τ(0)	G (1)	0(0)	300	M	0(0)	8(0)	9(j)		0)
400	M	8.0(1)	20.90	1)	0(3)	0(0)	400	Μ	8.0(1)	8(3)	0(3)	0(8)
500	M	24.0(9)	48.0(3)	96.0(5)	50.9(7)	500	M	56.01 1	4)	32.00	2)	96.0(5)	116.40	16)

	FLEUR	OMAM	MA SCUTU	LATA	BRODSKII	F						ISOCH	AETA	OVALIS M						
	NIGHT-1		NIGHT-2		DAY-1		D # Y - 2					NIGHT-1		NIGHT-2		DAY-1		0 A	Y-2	
10-0 M	C (8)	8 (()	0(Ð	0(8)		10-0	M	0(8)	0(0)	9(33		0(0)
25 M	0(0)	5 (0)	6(3)	0(0)		25	M	0(0)	0(0)	0(3)		-0 (0)
50 M	0 (2)	0(3)	0(3)	00	0)		50	M	0(0)	Ó (Ö)	9 (33	<i>.</i> ,	Ô (0)
75 M	16.0(1)	0(3)	0(1)	9(0)		75	M	Ũ (0)	0(0)	Ő (33		9.6	0)
100 M	416.0(26)	704.0(11)	9 (3)	0(0)		100	M	Ű(0)	8(0)	0(33		80	0)*
200 M	32.0(2)	96.6(18)	0(. 1)	0 (0)		200	M	0(0)	0(0)	0(1)		Ô (. 8)
3 0 0 M	32.6(2)	96.0(3)	0())	0(0)		300	M	6 (0)	0(0)	Ő C	33		0.0	a)
400 M	0 (C)	0(0)	96.0(3)	32.0(1)		400	M	64.0(8)	41.8(2)	Ő C	11	6	4.00	2)
500 M	8.0(3)	48.0(3)	16.0(1)	0(0)		500	M	36.0(9)	32.0(2)	16.0(Ď	6	5.5(9)

FLEUROMAMMA SCUTULATA M

NIGHT-2

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DAY-2

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PLEUROMAMMA SPP COP

96.0(12)

NIGHT-1

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50 M

75 M

100 M

200 M

300 M

480 M

500 M

10-0 M

25 M 59 M

75 M

100 M

200 M 300 M

400 M

		ISOC	IAETA	OVALIS (COP				s
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	Ű(0)	0(3)	0(3)	8(0)
25	M	0(8)	C (0)	0(Ð		0)
50	м	0(0)	6(0)	0 (33		0)
75	M	6 (0)	0(0)	3 3	j)		0)
100	M	0(·C)	0(0)		33	0(0)
200	M	9(0)	0(3)	8 (D	0(0)
300	M	6 (0)	0(0)	0(1)	00	0)
400	M	16.0(2)	0(0)	0(i)	0 (0)
500	м	104.0(26)	176.00	11)	224.01	1.4)	174.51	24)

		HETER	ORHA	BOUS TANN	ERI	GIESBRECH	ΤF		
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-8	Μ	0(0)	0(0)	0(3)	0(. ()
25	м	6 (0)	167.3(2)	0(. 3)	0(0)
.50	Μ	0(6)	0(0)	6 (3)	0(8)
75	Μ	C (0)	0(0)	0(3)	0(0)
138	M	θ(0)	0(8)	D (3)	0 t	8)
200	Μ	48.0(3)	8 (0)	16.0(1)	- O (0)
300	M	0(Û)	0(8)	0(3)	0 (0)
489	Μ	0(0)	20.9(1)	0(3)	0(**	0)
500	M	2.7(1)	0(0)		3)	0(0)

		HETER	ORHA	BOUS TANN	ERI	M			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	D (6)	6(0)	0(3)	0(0)
25	M	8(0)	ΰ(0)	0(3)	0(0)
50	M	0(0)	33.1(1)	Ű (3)	0(0)
75	м	ε(0)	0(8)	0(3)	0(0)
100	M	0(C)	6(0)	6(3)	0(0)
200	м	48.0(3)	G (0)	80.0(5)	0(0)
30 0	M	Û (0)	64.0(2)	32.0(1)	41.8(1)
400	Μ	. 8.0(1)	0 (0)	0(3)	0(0)
500	Ħ	2.7(1)	32.00	2)	16.00	1)	7.3(1)

HETERORHABDUS ROBUSTOIDES BRODSKII

		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	6 (0)	G (0)	0())	0(0)
25	м	0(0)	0(3) :	0())	. D C	0)
50	M	8(0)	0(0)	0(33	0(0)
75	м	Û (8)	0(0)	Ű (3)	0(0)
100	M	6 (0)	5 (0)	6(3)	0(0)
200	M	6(0)	0(۵)	σ())	0(8)
300	M	0(0)	0(0)	0(3)	0(0)
400	м	8.4(1)	ΰ(3)	ů ())	Ū (Ö)
500	м	2.71	11	1.3	a 1	0.0	11	5.0	0.3

		HETER	ORHABDUS	SPIN	IFRON	IS CLAUS			
		NIGHT-1	NIG	HT-2		DAY-1		DAY-2	
10-0	M	8.0	0)	0(0)	0(33	0(0)
25	м	G (6)	0(0)	0(3)	0(0)
50	M	0(0)	0(9)	0())	0(0)
75	м	0(8)	0(0)	0(3)	Ū (8)
100	M	5 (6)	0 (0)	66	1)	0(0)
200	м	0(0)	0(3)	0(3)	0(0)
300	M	6 (Ũ)	ΰ(G)	0(1)	41.8(1)
400	Μ	G (0)	0(a)	Ű (1)	0(0)
500	м	ΰ(0)	0(0)	ũ (1)	. 0(0)

		HETER	ORHA	BOUS SF F					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	6(0)	6())	0(0)
25	Μ	0 (0)	6(3)	C (1)	0(0)
50	м	0(a)	6 (0)	6 (3)	0 (.	0)
75	м	6(0)	0 (8)	0 (1)	0(0)
163	M	53	6)	0(0)	0(33	0(0)
208	м	0(0)	0.0	0)	0 ())	0(8)
360	м	ΰ(0)	0(3)	0(3)	8(0)
400	M	ນ (6)	0(0)	. Ú (1)	32.0(1)
500	M	ú (8)	- B (3)	01	- 1)	Ó (Ð)

		HETER	ORHA	BOUS SP M					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	м	0(0)	0(0)	0(3)	0(0)
25	M	C (0)	0(3)	0.0	3)	0(0)
50	м	0(0)	0(0)	0(3)	. B (8)
75	M	0(0)	0(0)	0(3)	8(8)
100	M	0(6)	0(0)	. QC	3)	0(8)
200	M	0(0)	0 (ອັງ	0 (3)	90	. 0)
300	M	8(Ũ)	0(0)	0(3)	0(8)
400	M	6(0)	0(0)	9(3)	64.0(2)
500	м	8 (0)	0(0)	0(3)	. O C	0)

		HETER	ORHA	BOIDAE 5X4	+ COF	,			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	6(0)	0(0)	0(3)	0(0)
25	м	0(8)	· 0(0)	G (3)	. O C	6)
50	M	0(0)	0 (0)	0(3)	0(0)
75	M	0(0)	0(0)	0(3)	- 0 C	8)
100	M	0(0)	0(0)	0(3)	0(04
200	M	8(8)	7.5(1)	9 (11	0(8)
380	M	0(0)	0(0)	. 0(3)	83.7(2)
400	м	24.0(3)	0(0)	B (3)	32.0(1)
500	M	8 (0)	0(D)	0(3)	. 0(0)

		HETERORHABDIDAE 5X3 COP								
		NIGHT-1		NIGHT-2		DAY-1		DAY-2		
10-0	M	0(0)	0(0)	00	Q)	0(0)	
25	M	G (0)	0(0)	9(3)	0 (Ó)	
50	м	0(0)	0(0)	0(3) <		0)	
75	M	0(Ű)	128.0(1)	0 (- 15	0(0)	
103	м	ΰ(0)	256.0(4)	64.0(2)	43.6(6)	
200	м	6 (0)	173.6(23)	0(3)	0(0)	
300	м	256.0(16)	608.0(19)	0(3)	167.3(4)	
400	м	8.61	1)	83.7(4)	224.0(7)	96.0(3)	
500	M	40.0(10)	160.0(10)	128.0(3)	50.9(7)	

		HETER	RORHA	BDICAE SI	ALL	COP			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	0(0)	0(3)	0 (0)
25	M	6 (6)	6(0)	8(Ð	8(0)
50	Μ	ΰ (0)	0(0)	6(3)	8(0)
.75	M	16.0(1)	0 (0)	0(3)	0(0)
100	M	0(8)	6 (()	0(1)	9 (0)
200	М	336.0(21)	52.8(7)	96.0(ŝ)	8(Ó)
309	M	1136.0(71)	1184.0(37)	4192.0(1	31)	794.8(19)
460	Μ	24.0(3)	62.7(3)	0 ())	224.0(7)
500	M	Ű (0)	64.01	4)	6 (3)	5 (0)

		CANDACIA	COLUMBIAE	CAM	PBELL F			
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	M	8(0)	0(0)	0(. 3)	0(0)
25	M	0(0)	0(0)	0(1)	0(0)
50	M	0(0)	0(0)	0(3)	0 (Q)
75	M	48.0(3)	9(0)		3)	0(Ü)
100	M	0(0)	128.00	2)	0(3)	0(0)
200	M	0(0)	0(8)	Ū (3)	0(0)
300	м	0(0)	0(0)	0(3)	41.8(1)
400	M	6(0)	0(0)	.0 (3)	32.0(1)
50 0	Μ	6(0)	16.0(1)	0(1)	0(0)

		CANDACI	COLUMBIAE	CCP				
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	Μ	6(0)	- 0 (0)	0(3)	0 (0)
25	M	Ű(Ű)	0(9)	8(3)	0.0	0)
50	M	64.0(1)	0.0	0)	0(3)	S 0 C	0)
75	M	48.0(3)	0(0)	00	3)	- 0 (0)
120	M	16.0(1)		0)	0(1)	0(0)
200	M	16.0(1)	45.3(3)	Q (33	8(01
300	M	0(0)	G (0)	64.0(2)	0(G)
400	M	0(0)	Ĉ (0)	0(3)	Ű (0)
500	M	6(0)	16.0(1)	0(1)	50.9(7)

		ACART	IA L	ONGIREMIS	LIL	LJEBORG M			
		NIGHT-1		NIGHT-2		DAY-1		DAV-2	
10-0	M	316.1(2)	0(0.)	0(1)	127.4(1)
25	м	270.9(1)	0(0)	0(- 1)		6)
50	M	9(0)	01	.0)	0(33	- D (0)
75	M	0(0)	9(0)	0(3)	Ó C	0)
100	м	0(0)	0(.0)	0(33	0(0)
200	M	6(0)	0(0)	0(3)	0(0)
360	M	0(C)	6(0)	.0(1)	Ó C	0)
400	Μ	6 (0)	0(0)	0(3)	-0 (0)
50 0	M	6 (6)	0(9)	0(1)	0 (0)

	HETEROSTYLITES MAJOR V								UNKNOWN COPEPODITE						
	NIGHT-1		NIGHT-2		DAY-1		DA Y - 2				NIGHT-1	NIGHT-2	DAY-1	DAY-2	
10-0 1	13	60	0(a)	0(1)		0)	10-	0 M	1738.4(11)	487.7(4)	2777.8(12)	0(0)
25 M	ũ đ	6.5	0 (a)	0(1)	0(0)	2	5 M	270.9(1)	2614.4(1)	1000.0(1)	0(6)
50 M	ο i	ca.	6 (0)	9.0	j)	Ő (0)	. 5	UΜ	640.8(10)	2681.6(6)	192.0(3)	666.7(1)
75 M	δ.	0	c i	8)	Q (15		Č)	7	5 M	560.0(35)	128.0(1)	16.0(1)	0(0)
198 M	6 (ē)		a)	0(13	0(0)	16	0 M	224.0(14)	192.0(3)	64.0(2)	43.61	6)
200 M	5.0	č	D C	0)	ĉi	- ii	8 (0)	20	0 M	2096.0(131)	143.4(19)	1568.0(93)	288.0(9)
300 M	0 (0)	6(0)	Ű Ő Č	1)	0(0)	30	0 M	1728.0(108)	2368.8(74)	4480.0(14))	1254.9(30)
460 M	n (55	6.	0)	Ō (3)	0(0)	40	а м	360.3(45)	794.8(38)	928.0(23)	672.0(21)
500 M	0 (0)	16.((1)	0(1)	0 (00	50	0 M	152.04 38)	68E.0(43)	0())	203.6(28)

 HALCFTILUS
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		HALOF	TILU	S PSEUDOX	YCEPH	ALUS COP			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	ů (0)	8 (0)		3)	0(0)
25	M	0 (0)	0(3)	0(3)	0(0)
58	M	6 (6)	80	0)	0(1)	8(.0)
75	M	<u> 6</u> (0)	0(0)	0(3)	0(0)
100	M	U (Ö)	<u> </u>	0)	0(3)	8(0)
200	M	ė (0)	6(3)	C (3)	0(.0)
300	м	48.00	3)	32.0(1)	32.0(1)	8 (0)
400	M	40.0(1)	0(a)	0(1)	64.0(2)
500	M	2.71	11	64.01	ū)	ñ (1)	7.3(1)

		HETER	OSTY	LITES MAJ	DR DA	AHL M			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	ũ (0)	8(3)	0(3)	0(6)
25	M	6(0)	0(0)	0(1)	0(0)
50	M	6 (0)		0)	0())		0)
75	M	0(C)	8 (3)	G (3)	0(0)
100	Μ	Ű (Ü)	0(0)	0(1)	0(0)
200	M	0(0)	6(0)	0(3)	6(0)
300	M	Û(0)	0(3)	0(39	B (0)
400	M	Û (0)	0(0)	8(3)	0(0)
500	м	[]	6.)	16.0(1)	0(1)	0(0)

(and
1
4

		AMPH:	IP00	SP A					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	1106.2(7)	1956.6(16)	0(3)	0(0)
25	M	0 (6)	418.3(5)	3000.0(3)	2536.0(21)
50	M	448.Ū(7)	286.0(16)	64.0(1)	0(0)
75	M	528.0(33)	704.2(11)	32.0(2)	0(6)
100	м	96.0(6)	192.0(3)	G (3)	29.1(4)
200	M	-0 C	0)	5.0(1)	128.0(3)	384.0(12)
300	M	8(0)	64.0(2)	8())	418.3(10)
400	Μ		0)	0(0)	288.0(3)	160.0(5)
500	м	16-01	4)	n (- 63	6.6	11	0(0)

		AMPHI	POD	SP B					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	Ű (0)	0(0)	0(3)	0(0)
25	M	Ű-(0)	0 (0)	6 (3)	0(8)
50	M	0(6)	11.9(2)	0(1)	0(0)
75	M	0(0)	0 (0)	0.0	3)	0(0)
100	м	ũt	0)	0(0)	0())	0(0)
200	M	16.0(1)	30.20	4)	0(3)	0(0)
300	M	S (6)	32.0(1)	1120.01	35)	83.7(2)
400	M	0(0)	6(0)	32.01	1)	32.0(1)
500	M	6.f	0)	n r	อง	64.0(- 11	80.01	11)

		AMPHI	POD	SPC					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	316.11	2)	0 (8)	0 (3)	0(0)
25	M	6 (6)	6(0)	8(1)	0(0)
50	Μ	ີ ບໍ່ໄ	0)	0.0	0)	0(1)	0(0)
75	M	0 (0)	01	0)	Ű (33	0.(8)
100	Μ.	0(0)	0(D)	0(1)	0(0)
200	Μ	ΰ(0)	0(0)	e (3)	0(6)
300	M	Û (Ú)	0(10)	128.0(+)	0(0)
400	M	÷ (0)	8(0)	0())	96.0(3)
500	м	6.6	£)	0.0	3)	6.6	11	- D C	6)

		AMPHI	POD	SP D					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	.0 (0)	61	9)	6(1)	0(0)
25	Μ	-0 (8)	0(3)	Q (1)	0 (0)
50	M	ΰ ί	6)	0.0	9)	0(33	0(0)
. 75	×	6(6)	0.0	0)	61	33	0 (8)
100	м	5 (0)	ΰ(3)	6 (1)	0(0)
200	Μ	0 (0)	5.0(1)	0(1)	0(6)
300	M	04.51	4)	64.01	2)	6 (3)	41.8(1)
400	M	÷ (0)	104.6(5)	96.01	30	128.0(4)
500	Ħ	8 (0.)	48.0(3)	-0 (3)	0(0)

		AMPHIPOD	SP E					
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	0(0)	0(3)	0 (0)
25	M	Ū(O)	0(0)	0.0	3)	0(0)
50	M	0(0)	0(8)	0 (3)	0 (0)
75	M	0(0)	0(0)	0(33	0(0)
100	M	0(0)	0(0)	0(3)	0(0)
200	M	(0))	0(0)	0(3)	0(0)
300	M	0(0)	0(8)	0(3)	0(0)
400	M	8.8(1)	0(0)	0(3)	0(8)
500	M	S(D)	0(0)	32.0(2)	0(0)

		AMPH	IPOD	SP F					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	158.0(1)	0(0)	0 (3)	0(0)
25	M	8 (0)	- 0(0)	0 (1)	0(0)
50	M	6(0)	0(8)	0(3)	0.0	0)
75	M	0(0)	0.0	0)	0(3)	° 0(0)
100	M	Ũ (0)	0(0)	0(3)	7.3(11
200	M	0(0)	0(0)	0(30	0(0)
300	M	ΰt	0)	0(Q)	0(1)	0.0	0)
400	M	61	0)	 	0)	0(3)	0(0)
500	M	0(0)	0(0)		1)	0 (03

		PHRON	EMA	SP					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	·
10-0	11	0(0)	8(8)	0 (1)	0(0)
25	М	0(0)	8(0.)	0(3)	0(0)
50	м	8(8)	6.0(1)	0(3) /	с — О (0)
75	м	0(69	8 (0)	0 (3)	0 (0)
100	h	0(0)	0 (0)	0 (3)	0(0)
200	M	8 (0)	0 (0)	8(1)	0(0)
300	M	6(0)	Ũ (0)	0.0	1)	6(0)
400	M	5 (0)	01	0)	. 0(33	0(0)
500	м	ű (0)	0(0)	6(1)	0(6)

		AMPHI	00°	SP G					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M) Q	0.)	0 (0)	9 (3)	0-0	0)
25	M	0(0)	0.0	8)	0(33	0(0)
50	M	320.0(5)	01	0)	0(3)	0(8)
75	1	ΰĽ	Û)	0(0)	0(.)) .	0(0)
100	M	6(8)	42.71	2)	0(3)	0 (0)
200	M	0(6)	5.0(1)	0 (1)	0(0)
309	M	0(0)	0.0	0)	0(3)	0(0)
400	M	0(0)	8(8)	0(33	0 (8)
508	Ħ	0(0)	Ð (0)	0(3)	0(0)

		POD	SP H								CONCI	HOECI	A PSEUCOD	DISCO	PHORA IM	ATUR	ES	
40.2 4	NIGHT=1	•	NIGHT-2		DAY-1	• •	DAY-2	-			NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0 M	00	0)	00	0)	0(3)	0.(0)	10-0	м	- 0 (0)	0(0)	0(3)	0 (8)
29 M	U (0)	0(0)	0(3)	0(0)	25	M	6(8)	0 (0)	0.(1)	0(0)
20 M		83		3)	0 C	11	8(0)	50	M	G (3)	357.5(13)	8(33	8(8)
100 5	70 01	0,		0)	U (11	0 0	0)	75	M	224.0(14)	0(0)	0(3)	0(0)
100 1	32.01	2)	U (0)	0 (1)	0(0)	100	M	208.0(13)	384.0(6)	6(3)	0(8)
200 11	L L L L L L L L L L L L L L L L L L L	0)	U (81	0(- 33	0(0)	200	M	528.0(33.)	158.5(21)	0(3)	0(0)
300 m		- 83	32.00	1)	6(1)	0(0)	300	M	880.01	55)	1472.0(46)	G (3)	1422.2(34)
- 400 M		0.3	20.90	1)	60	11	0(8)	408	M	32.0(4)	209.2(10)	704.0(22)	288.0(9)
960 M	÷ ÷	0)	0(0)	0(1)	0(0)	500	M	Ç (0)	272.0(17)	320.0(23)	123.6(17)
	AMPHI	POD	EGG								CONC	40FCT		RCÍT	F			
	NIGHT-1		NIGHT-2		DAY-1		DAY-2				NIGHT-1		NIGHT-2					
10-0 M	Ũ (8)	6(0)	0(3)	0(a)	18-3	м	a t	0)	8(8)	0,1	03.	ົ້ກເ	<i>0</i>)
25 M	G (0)	Û (0)	0(3)	0(6)	25	M	ě (0)		0)	0 6	- 11	ñ c	ถ้า
50 M	Ű (6)	6 (3)	0(33	0(0)	50	M	6.6	n)	ົ່ດເ	0.5	0(- <u>1</u> 1 -		0 1
75 M	-Û (8)	Û (8)	G (3)	0-(0)	75	M	0 (0)	0.0	0	0.7	43	0.0	ล้า
100 M	0(6)	0(0)	0(3)	0(0)	100	M	1.0	0)	s c	ů,	6(ส้า		0.
200 M	16.0(1)	Ð (3)	0(3)	0(0)	200	M	64.0(4)	00	0)	0 (0.0	້ຄົ້
300 M	0(8)	64.6(2)	32.0(.1)	0(0)	300	M	64.0(43	224.00	7)	0 (- 11	209.21	ธ์เ
400 M	8.0(1)	0(0)	6 (3)	32.0(1)	460	M	6 (6)	20.90	11	128-0(- 23	0/	
500 M	10.7(4)	32.0(2)	0(1)	0(0)	500	M	18.7(7)	48.0(3)	16.0(Ď	D C	0)
	CONCH	0. F	SEUDODISC	орна	RA RUGJAK	OV F					CONC	-	TA SKOTSE					
	NIGHT-1		NIGHT-2		DAY-1		DAY-2				NTCHT-1		NTCHT-2	C NO 1	L LOGATOR		DAV-2	ŝ
13-0 M	Ű (0)	64	3)	0(33	Ū (0)	1.0-0	м	01	81	N10111-2	01	041-1	1)	041-2	
25 M	<u> </u>	8)	83.7(1)	0(1)	5(0)	25	M	n r	ถ้า		03	0.7	- 11	0.0	
50 M	192.8(3)	71.5(2)	0(3)	0(0)	59	M		6)	0,	0	0 (11	0.0	0,
75 M	224.0(14)	192.0(3)	0(1)	ŌĊ	0)	75	M	i a	01	ů,	a.	01	11	. O(- 2 /
100 M	288.6(18)	128.61	2)	Ű (33	0(0)	100	M	67	őí		0.5	ů,	- 11	0.0	0)
200 M	144.0(9)	75.5(10)	0(3)	0(0)	200	M	<u>.</u>	0)	ő	0)		15	0.0	6)
310 M	176.0(11)	256.00	8)	0(3)	962.1(23)	36.0	M	0 (ō)	96.0(3)	0,	ii.	0.0	01
400 M	32.0(4)	83.7(4)	192.0(5)	224.01	7)	400	M	10	ō,	41.8(21		- 11	32.80	- 41
500 M	44.01	11)	144.0(9)	175.0(11)	80.0(11)	500	M	32.6(12)	112.0(7)	32.0(2)	01	<u>(</u>)
								•						• •			••	

		CONCI	IOECI	A PSEUCCO	ISCO	PHORA M			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	Ũ (0)	0 (0)	6 (3)	0(0)
25	M	· · · · · · · · · · · · · · · · · · ·	6)	83.7(1)	ð (3)	0(0)
50	Μ	£ (0)	£ (0)	0 (3)	.0 (0)
75	*	0 (0)	0(0.)	96.01	5)	0(0)
109	Μ	Ű (6)	0-(3)	128.0(4)	0(0)
200	M	8 (8)	Ű (*	j)	368.0(23)	0(0)
300	Μ	0 (0)	C (3)	3072.01	95)	0(0)
400	M	£.(£)	£ (0)	Ē (32	6(0)
500	M	104.0(26)	ê (0)	0(1)	Di	0)

		CONCH	OECI	A ALATA M	INOR	MCHARDY	F		
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	8(0)	9(3)	0 (3)	9(0)
25	M	6 (60	0 (0)	0(3)	8(8)
59	₩.	£ (6)	0(3)	0(- 33	0(6)
75	M	8(0)	0(0)	Ó (3)	Û (8)
100	M	Û (Ð)	0(a)	Ū (- 33	0(0)
200	м	ũ (0)	6 (3)	6 (1)	8(0)
300	M	86.8(5)	00	0)	8 (j)	3 (0)
400	M	D (0)	41.8(2)	0())	96.0(3)
500	M	G (0)	16.01	1)	01	3)	0 (0)

	CONCH	DECI	A ALATA P	1INCR	м					CONCH	IOECI	A MAGNA I	MMAT	URES			
	NIGHT-1		NIGHT-2		DAY-1		DAY-2			NIGHT-1		NIGHT-2		DAY-1		DAY-2	
18-0 M	0(0)	0(0)	0(1)	6(0)	10-0 M	0(0)	0(3)	0(33	0(0)
25 M	8(0)	0(0)	0(3)	0(0)	25 M	0(0)	83.7(1)	0(3)	9(0)
50 M	 	0)		0)	0(1)	0(0)	50 M	÷ 0 (6)	23.8(4)	0(3)	· 0 (0)
75 M	G (0)	0(0)	0(1)	0(0)	75 M	0(0)	192.0(3)	0(3)	8 (0)
100 M	£ (60	0(0)	0(1)	0(0)	100 M	0(0)	Ū Ć	0)	9.0	3)	0(0)
200 M	Ű (0)	0(Ö)	0(1)	0(0)	200 M	0(0)	0 (0)	0 (3)	0 (63
300 M	0 (0)	0(a)	0(3)	0(6)	380 M	0 (0)	0 (0)	0(1)	Ô (0)
400 M	0(0)	20.91	1)	Ő (1)	32.0(1)	400 M	0(0)	0 (0)	0 (1)	D C	0)
500 M	0 (6)	0(3)	0 (33	0(0)	500 M	Q (0)	0(0)	0(33	0 (0)
	CONCH	IOECI	A ALATA	1INCR	IMMATURE	S				CONCH	OECI	A NEH SPE	CIES	F			
	NIGHT-1		NIGHT-2		DAY-1		DAY-2			NIGHT-1		NIGHT-2		0AY-1		OAY-2	
19-3 M	0(0)	0(3)	0(33	0(0)	10-0 M	6 (0)	0(0)	0(1)	0 (0)
25 M	ΰ (6)	0 (8)	0(- 1)	0(0)	25 M	<u></u> (0)	. 8(0)	0 (3)	, O C.	0)
50 M	Û(6)	0(0)	0 (1)	0(0)	50 M	Ű (0)	0(0)	01	$-\mathbf{D}_{\mathcal{P}}$	0 (0)
75 M	0(0)	0(0)	0(1)	0(0)	75 M	0(0)	8(0)	. 0(1)	. G (-	0)
100 M	ΰ(0)	0(3)	0(1)	0(0)	100 M	. D(0)	. 0(0)	0.0	3)	0.0	*0)
200 M	6 (U)	0(0)	0(1)	0 (0)	200 M	0(0)	0 (0)	0(1)	0(0)
300 M	0(0)	32.0(1)	0 (1)	0(0)	300 M	0(0)	9(0)	0(3)	8(8)
480 M	0(0)	62.71	3)	128.01	+)	96.0(3)	400 M	0(8)		0)	0(3)	90	.0)
500 M	ũ (0)	32.0(2)	64.0(+)	14.5(2)	500 M	0(0)	32.0(2)	0(1)	0.0	0)
	CCNCH	OECI	A MAGNA F	-						CCNCH	OECI	A NEW SPE	CIES	M .		, j	
	CCNCH NIGHT-1	OECI	A MAGNA P NIGHT-2	-	DAY-1		DAY-2			CCNCH NIGHT~1	OECI	A NEW SPE NIGHT-2	CIES	M DAY-1		DAY-2	
10-0 M	CCNCH NIGHT-1 0(10ECI 0)	A MAGNA F NIGHT-2 0(0)	DAY-1 0(1)	0 A Y - 2 0 (0)	10-0 M	CCNCH NIGHT-1 0(OECI 8)	A NEW SPE NIGHT-2 0{	CIES 8)	M DAY-1 0(2)	DAY-2 0 (8)
10-0 M 25 M	CCNCH NIGHT-1 0(0(0 E C I 0) 0)	A MAGNA F NIGHT-2 0(0(0) 8)	DAY-1 0(0(1) 1)	0 4 Y - 2 0 (0 (0) 0)	10-0 M 25 M	CCNCH NIGHT~1 0(0(0ECI 0) 0)	A NEW SPE NIGHT-2 0(c(CIES 8) 0)	M. DAY-1 0(0(2) 1)	DAY-2 0 (0 (0) D)
10-0 M 25 M 50 M	CCNCH NIGHT-1 0(8(0(10ECI 0) 0) 0)	A MAGNA F NIGHT-2 0(0(107.3(9) 9) 18)	DAY-1 0(0(0(1) 1) 1)	0 A Y - 2 0 (0 (1 2 • 8 (0) 0) 2)	10-0 M 25 M 50 M	CCNCH NIGHT~1 0(0(0(0ECI 0) 0) 0)	A NEW SPE NIGHT-2 0{ 0{ 0{	CIES 8) 0) 0)	M. DAY-1 0(0(0(4) 1) 0)	DAY-2 0 (0 (0 (0) 0) 0)
10-0 M 25 M 50 M 75 M	CCNCH NIGHT-1 0(0(0(32.0(0ECI 0) 0) 0) 2)	A MAGNA F NIGHT-2 0(0(107.3(64.0(0) 0) 18) 1)	DAY-1 0(0(0(0(1) 1) 1) 3)	DAY-2 0(0(12.8(125.5(0) 0) 2) 3)	10-0 M 25 M 50 M 75 M	CCNCH NIGHT~1 0(0(0(0(0ECI 0) 0) 0) 0)	A NEW SPE NIGHT-2 0(0(0(0(CIES 8) 0) 0) 0)	M. DAY-1 0(0(0(0(4) 3) 3) 3)	DAY-2 0(0(0(0(0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M	CCNCH NIGHT-1 0(0(32.0(32.0(10ECI 0) 0) 0) 2) 2) 2)	A MAGNA F NIGHT-2 0(0(107.3(64.0(0(9) 9) 18) 1) -0)	DAY-1 0(0(0(0(0(1) 1) 1) 1)	DAY-2 0(12.8(125.5(7.3(0) 0) 2) 3) 1)	10-0 M 25 M 50 M 75 M 100 M	CCNCH NIGHT~1 0(0(0(0(0(0ECI 0) 0) 0) 0) 0)	A NEW SPE NIGHT-2 0{ 0{ 0{ 0{ 0{	CIES (8) (0) (0) (0) (0) (0)	M DAY-1 0(0(0(0(0(4) 3) 3) 3) 3)	DAY-2 0 (0 (0 (0 (0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M 200 M	CGNCH NIGHT-1 0(0(32.0(32.0(0(10ECI 0) 0) 0) 2) 2) 2) 0)	A MAGNA F NIGHT-2 0(107.3(64.0(0(5.0(9) 3) 18) 1) -0) 1)	DAY-1 0(0(0(0(0(1) 1) 1) 1) 1)	DAY-2 0(12.8(125.5(7.3(0(0) 0) 2) 3) 1) 0)	10-0 M 25 M 50 M 100 M 200 M	CCNCH NIGHT~1 0(0(0(0(0(0) 0(0ECI 0) 0) 0) 0) 0) 0)	A NEW SPE NIGHT-2 0(0(0(0(0(CIES 0) 0) 0) 0) 0) 0)	M DAY-1 0(0(0(0(0(4) 3) 3) 3) 3) 3) 3)	DAY-2 8 (0 (0 (0 (0 (0) 0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M	CGNCH NIGHT-1 0(0(32.0(32.0(0(0(0ECI 0) 0) 0) 2) 2) 2) 0) 0)	A MAGNA F NIGHT-2 0(107.3(64.0(5.0(32.0(9) 18) 18) 1) -0) 1) 1)	DAY-1 0(0(0(0(0(0(0(1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(12.8(125.5(7.3(0(0(0) 2) 3) 1) 0) 6)	10-0 M 25 M 50 M 75 M 100 M 200 M 300 M	CCNCH NIGHT~1 0(0(0(0(0(0(0(0(0(0(0(0(0(0ECI 0) 0) 0) 0) 0) 0) 0)	A NEW SPE NIGHT-2 0(0(0(0(0(0(CIES 8) 0) 0) 0) 0) 0) 0)	M DAY-1 0(0(0(0(0(0(0(2) 3) 3) 3) 3) 3) 3) 3)	DAY-2 0 (0 (0 (0 (0 (0 (0) 0) 0) 0) 0) 0)
10-0 M 25 M 50 M 75 M 100 M 200 M 300 M 400 M	CGNCH NIGHT-1 0(0(32.0(32.0(0(0(0(IOECI 0) 0) 0) 2) 2) 0) 0) 0)	A MAGNA F NIGHT-2 0(117.3(64.0(5.0(32.0(0(0) 18) 18) -0) 1) 1) 9)	DAY-1 0(0(0(0(0(0(288.0(1) 1) 1) 1) 1) 1) 1) 1)	DAY-2 0(12.8(125.5(7.3(0(0(0) 2) 3) 1) 0) 6)	10-0 M 25 M 50 M 75 M 100 M 200 M 300 M	CCNCH NIGHT~1 0(0(0(0(0(0(0(0(OECI 0) 0) 0) 0) 0) 0) 0) 0) 0)	A NEW SPE NIGHT-2 C(C(C(C(C(C(C(C(C(C(C(C(C(CIES 0) 0) 0) 0) 0) 0) 0) 0)	M DAY-1 0(0(0(0(0(0(0(0(2) 2) 2) 2) 2) 2) 2) 2) 2) 2)	DAY-2 0 (0 (0 (0 (0 (0 (0 (0) 0) 0) 0) 0) 0)
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	CONCH	10EC)	LA F									UNKN		STRACOD					
	NIGHT-1		NIGHT-2		DAY-1		DAY-2					NIGHT-1		NIGHT-2					
18-0 M	8(0)	6 (0)	0(1)	0(0)		10-0	м	0(0)	0(3)	n c	1)	n (8 1
25 M	3(C)	Ű C	0)	0 (n	0(0)		25	м	0 (0)	0 (0)	n c	- 11	R C	0)
50 M	ů ((0	0(3)	0(11	â (n)		50	M	0 (0)	n (ab	ñ č	- 11	n r	0.5
75 M	86.0(5)	B (0)	6 (- ii	n c	61		75	м	6 (6)	n c	n s	0,0	ň	41.81	
100 M	0 (0.1		01		11		0,		100	M	5.6	âs		0)	0(11	1000	- 1/ 0\
200 M	5(ຄັ້	6(- 01 - 11		11	0(0,		200	M	5 (01	0.	0.5	0,	11	0 (0,
300 M	B (61		n i	0 (0 (0,		300	м	<u> </u>	- ñi	64.00	21		11	254 01	6)
400 M		0.5	57	0,0		17		0,		600	м	0.0	ů,	62 7/	71			231.01	
500 M	0 (ñ /	0,	01	0,			U (0,0		500	M	4.61	1.	02.71	37	0(24 8(87
				57		17								••	• /		,,	24000	37
	CONCH	10501	A FIEGANS									EUPH	USTA		HAN	SEN			
	NTGHT-1		NTGHT=2	•	DAY-1		BAY-2					NIGHT-1		NTGHT=2					
10-0 M	F /	0.1	57	0.5			041-2	• •		1.8-0	м	1422.31	91	61.0/	2)		11	041-2	• •
25 M	01	0, 0,	0(- 11				0.7		25	M	270.9(11	669.3/	81	0 (- 11	0(0,
50 M		2)	01	0.3			0(0,		50	м	640.01	101	009131	0)				-07
75 M			<u>u</u> (0,		75	м	40.00	7,	256 86					
100 M	U (- U J 	U C	91				0)		100	-m M	40.01	31	250.01	41				0)
200 5	51	01		0)		11	00	0)		100	m M	U (0)	64.00	31	32.00	11		0)+
209 11	01		U L	31	Ul		UC	0,1		200			0)	UC	0)	UC	1)	96	0)
300 m	00	0.3		0)	00	- 11	0((1)		300	M	U (u)	0(3)	0(3)	41.8(1)
400 M	00	0)	00	0.5	UC	- 12	0(0)		400	M	U C	0)	0(0)	32.0(1)	0(0)
500 M	Ul	0)	32+01	21		3)	UC	U)		500	m	U(0)	0(0)	0(1)	0(0)
	CONCH	06.01	A CURTA G	e in e	THMATI PE	c						TESSA	PARE	ACHTON OC		US HANSEN	400	. 7	
	NIGHT-1		NTGHT=2		0AY-1							NTGHT+1		NTGHT-2	ULAI		400		ş
10-0 M	ii (0.)	ii (a 1	01	11	0,1-2	0.)		10-0	M		ſ١	01	0.5	0/1-1	11	0/	
25 M	67	61	t i	61		11	61	81		25	M	0.4	65	83.7(11		11	0 C	0,
50 M	6.0	ถ้า	61	ai	ů,			0,		50	M	6 (0.1		0.5		11		0/
75 M	61	0)		0)	0 (0,		75	M	0(0,		0)			· U(0.7
130 M	6 (6)	61	2)	01	37	0(0,		1.0.0	M	16.07	11		207				
200 M	0.0	0.	51	207	67		0(0,		280	-M	10.01		0(37	U (07
300 4	5.7	0.1	01	33	0(- 11	0(0,		200	- F1 - M		0)	9(0)	00	11	0(0)
600 H	01	2.2			01			01		600			01		01			Ut	0)
400 M		0,	30.04	01			00	07		400	171 Ma	0(01	UL	01	32.00	1)	UC	0)
900 M	24.01	91	32.01	21	-U (ψt	U)		560	r :	U	0)	UK	UJ.	υı	1)	U C	0)
	VERY	SMAI	1 0579400	ns								THYSA	NOFS	SA LONGTR	F	PANDT			
	NTGHT-1		NIGHT+2		04Y-1		DAY-2					NIGHT-1		NTGHT+2		DAY-1		044-2	
10-3 M	5 T	0.1	61 BI	9.1	041-1		041-2	0.1		10-0	м	L L	0.)	276.31	aı	041-1	11	041-2	D 1
25 1		0,	61	37				0)		25	M			07 7/			37		07
60 M	0 L	57	107 74	3				0)		2.7	en M	61	0)	03+71		u (11	U (0)
20 M		01	107.30	31	00		C.4(17		20	ri M	22 64	2.		0)	9(11	9(0)
130 1	144.0(31	256.01	21	90		U (0)		19	m M	32.01	21	UC	31	U (11	0(0)
100 M	01	01	2943.8(461	ป (14.5(2)	,	108	n N	10.00	17		3)	0(1)	58.2(8)
200 19	10.0(÷ 0)	1740 01	11	1110 51	11	266.70	11		200	е М	U (0,0	U C	0.1	00	11	00	0)
300 M 653 M	1/44.0(1	271	1312.00	411	1440.0(431	502.0(12)		300	m N	ü (6)	6(0)	0(3)	0(0)
499 M	204.01	331	504.7(211	384.0(121	0(400	11. 	00	01	0(0)	ŰČ	1)	0(0)
				-						- 0 A		~ ~ /			-				

		NIGHT-1		NIGHT-2		DAY-1		UAY-2	
10-0	M	6(0)	0(0)	0())	0(0)
25	M	0(0)	0(0)	0(1)	0 (0)
50	M	Ű (6)	71.5(4)	0())	0(0)
75	M	Ű (0)	0(0)	C (1)	0(0)
100	M	Û (0)	0(0)	6 (3)	0(0)
200	M	6(8)	6(0)	9 ())	6 (0)
300	M	. 6(0)	0(0)	. 0 ())	0(0)
400	M	ω (6)	0(0)	9 (3)	8(0)
600	M	6 /	0.)	6.6	a 1	0.4	11	0 (6.1

		UNKNO	WN E	UPHAUSID						
		NIGHT-1		NIGHT-2		DAY-1		DAY-2		
10-0	M	8(0)	6(9)	8(3)	0(0)	
25	M	0(0)	0(0)	0 (33	241.5(2)	
50	М	0(0)	0(0)	0(3)	0(0)	
75	M	Ð (C)	6(0)	6())	0(0)	
100	М	6(6)	6(0)	0(1)	0(0)	
200	M	ΰ(0)	0(3)	6(3)	0(6)	
300	M	0 (0)	C (0)	0(3)	41.8(1)	
400	M	Û (0)	6(0)	0(3)	9(0)	
500	Μ	D'C	0)	Û (0)	Ū (3)	0(0)	

		EUPHAUSID	FURCILLIA				
		NIGHT-1	NIGHT-2	DAY-1		DAY-2	
10-0	M	0(0)		0(3)	.0 (0)
25	۲	e(0)	83.7(1)	6(3)	2415.2(20)
50	M	1727.9(27)	196.6(11)	0(3)	E.4(1)
75	M	752.0(47)	1024.1(8)	0(1)	0(0)
100	M	48.0(3)	64.0(1)	. 0 (1)	C (0)
200	M	166.7(1)	7.5(1)	0(1)	0(0)
300	M	0(0)	0(0)	0(3)	0(0)
460	M	0(0)	0(.0)	0(35	0(0)
500	M	8(8)	0(0)	8(3)	0(0)

		EUPHAUSID	CALYPTOPIS				
		NIGHT-1	NIGHT-2	DAY-1		0 A Y - 2	
10-0	м	8230.5(5)	609.6(5)	1157.4(3)	0(0)
25	M	529.1(1)	418.3(5)	7009 .0 (7)	2294.5(19)
50	м	2000.0(4)	286.0(8)	384.0(5)	44.8(7)
75	M	592.0(37)	1536.1(12)	32.0(2)	334.6(8)
100	M	16.0(1)	256.0(4)	32.0(1)	0(0)
200	M	0(0)	15.1(2)	16.0(1)	0(6)
300	м	6(3)	0(0)	64.01	2)	6(0)
400	M	ΰ(3)	26.9(1)	64.0(2)	0(0)
500	M	Ŭ(Ĉ)	0(0)	55.6(1)	0(0)

		SERGESTES	SIMILIS	HANSI	EN			
		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	M	Ű(O)	8(3)	0(3)	0(0)
25	M	0(0)		0)	0(33	0(0)
50	M	Θ(Ο)	51(2)	0(3)	0(8)
75	M	G (G)	0(0)	0(3)	0(0)
100	Μ	0(0)	0(0)	Ū (3)	0(Ô)
200	M	0(0)	00	0)	0(1)	0 (0)
300	M	0(0)	0(0)	0(3)	0(0)
400	M	G(0)	6 (0)	0(3)	32.0(1)
500	M	0(0)	6(0)	0.0	3)	0(0)

		MYSID	SP						
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	0(0)	8(3)	0(0)
25	M	0(0)	. 0 (0)	0 (3)	0.(0)
50	M	8(0)	0(0)	Ū Ć	3)	0 (0)
75	м	0(0)	0(0)	0(3)	9 (0)
100	M	<u></u> <u> </u> <u> </u> (0)	0(0)	Ø (3)	0 (0)
200	M		0)	0 (0)	0(3)	0(0)
300	M	<u></u> 0 (0)	0(0)	0(1)	Ű (0)
400	M	0(0)	26.9(1)	0 (1)	0(0)
500	M	10.7(4)	32.0(2)	0(3)	14.5(2)

		BARNA	CLE	CYPRIS					÷
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	6(6)	0(0)	0(3)	0(8)
25	M	G (6)	83.7(1)	8(3)	0(0)
50	M	704.0(11)	607.8(17)	0(3)	- 19+2(3)
75	Μ	608.ü(38)	2948.10	16)	0.0	1)	376.5(9)
100	M	448.0(28)	1215.9(19)	1536.0(43)	894.5(12	3)
200	M	86.0(5)	37.7(5)	48.0(3)	96.0(3)
300	M	32.0(2)	96.0(3)	0(3)	163.4(1)
400	M	0 (0)	62.7(3)	0 (3)	96.0(3)
500	M	4.8(1)	0(0)	16.0(1)	14.5(2)

		ISOPO	D						
		NIGHT-1		NIGHT-2		DAY-1		DA Y - 2	
10-0	M	· O (0)	0(0)	0(3)	0(0)
25	M	6(0)	G (0)	D (1)	0(0)
50	M	6 (3)	35.8(1)	ÛC))		0)
75	M	6(0)	0(0)	0(3)	0(0)
100	M	48.0(3)	192.0(3)	32.0(1)	6.6(1)
200	M	U (6)	7.5(1)	0(3)	0(0)
300	M	6(6)	96.0(3)	0(33	0(0)
400	M	8.8(1)	3 3	0)	0(3)	0(0)
500	Μ	16.0(1)	88.0(1)	0(3)	0(0)

		NAUPL	.11					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2
10-0	M	13168.7(8)	10153.3(10)	14583.3(63)	20379.4(160)
25	M	8465.6(16)	15686.3(6)	24000.0(24)	23584.9(25)
50	Μ	10598.0(21)	3575.4(8)	3333.3(21)	9333.3(14)
75	M	4166.7(25)	Ű (a)	2200.0(44)	5664.5(26)
100	м	166.7(2)	1471.9(23)	1536.0(49)	0(0)
200	M	64.0(4)	15.10	1)	544.0(34)	128.0(4)
308	Μ	336.0(21)	1216.0(38)	0(3)	1960.8(12)
400	Μ	. 32.6(4)	915.0(7)	1125.0(3)	64.0(2)
500	Μ	16.0(1)	816.0(51)	333.3(á)	72.7(10)

		DEAD	LIMA	CINA HEL	ICINA				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	8 (3)	8(3)	0(0)
25	M	G (0)	0(0)	C (1)	0(0)
50	M	0(0)	208.2(28)	8(3)	0(0)
75	M	6 (0)	0(3)	0(3)	0(0)
100	Μ	Ú (0)	0(0)	0(1)	181.8(25)
200	M	0(8)	30.2(4)	8 (33	32.0(1)
300	M	ε (Ű)	110.3(4)	0(.))	0(0)
400	м	6 (0)	83.7(4)	0(3)	32.0(1)
500	M	8.0(2)	560.0(7)	0(. 1)	72.7(10)

		LIMACINA	HELICINA PHI	PPS		
		NIGHT-1	NIGHT-2	DAY-1		DAY-2
10-0	M	1896.4(12)	16823.9(138)	7175.9(31)	15539.3(122)
25	Μ	8940.3(33)	3597.E(43)	15080.0(15)	11834.7(98)
50	Μ	13951.1(218)	1387.3(194)	384.0(5)	19333.3(29)
75	Μ	3232.6(202)	4864.3(38)	80.0(j)	794.8(19)
100	Μ	480.0(30)	1365.3(64)	448.0(14)	94.5(13)
200	Μ	ü (G)	22.E(3)	32.0(2)	0(0)
300	м	32.0(2)	193.1(7)	96.0(3)	125.5(3)
400	м	0(0)	20.9(1)	9 (- 11	32.0(1)
500	Μ	0(0)	80.0(1)	55.6(1)	0(0)

		GAST	RO PO O	LARVAE					
		NIGHT-1		NIGHT-2		0AY-1		DAY-2	
10-0	M	50	0)	6(3)	9(1)	1910.6(15)
25	M	Ŭ (6)	167.3(2)	0 (1)	603.8(5)
50	M	1791.9(28)	35.8(6)	320.01	5)	12.8(2)
-75	Μ	512.0(32)	128.0(1)	83.3(2)	209.2(5)
100	Μ	16.0(1)	448.0(7)	64.0(2)	0(0)
200	M	ε(6)	6 (0)	9 (- îr	0(0)
300	M	16.0(1)	0(0)	0(3)	0(0)
400	M	ÛĆ	0)	0(3)	0(1)	0(6)
500	M	6 (0)	6 (9)	0 (- D	0 (0)

		CLION	IDAE						
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	0(0)	0(8)	0(3)	0(0)
.25	Μ	G (0)	6(0)	0(33	0 (0)
50	M	0 (0)	0(0)	D (3)		0)
75	M	0(0)	0(0)	0(3)	Ōč	0)
100	м	D (0)	0(0)	0 C	n	0 (0)
200	M	0(0)	0(0)	Ô (2)	(0)
300	M	0(0)	0(0)	Ŭ (1)	0(a)
400	M	ΰ(G)	0 (0)	Ő (1)	A (0)
500	м	0 (0)	ĎČ-	0)		- ii	9.0	a.

		TROCI	норно	RE LARVA	ε				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	158.0(1)	487.7(4)	2083.3(3)	0(0)
25	M	4334.7(16)	3179.3(19)	0(33	6641.9(5	5)
50	M	2943.8(46)	0(0)	0(3)	12.8(2)
75	M	288.0(18)	512.0(4)		3)	125.5(3)
100	M	48.0(3)	192.0(3)	- O. C	6)	7.3(1)
200	M	0(0)	0(0)	0 (3)	0(0)
300	Μ	0(0)	0(0)	Ū (3)	0(0)
400	M	8(6)	41.8(2)	0(3)	ð (-	0)
560	M	0(0)	8(Ū)	0(3)	0(0)

		EUKROHNIA	HAMATA MOBIUS STAGE I	4
		NIGHT-1	NIGHT-2 DAY-1	DAY-2
10-0	м	1896.4(12)	1950.5(64) 3935.2(17)	1401.1(11)
25	Μ	2167.3(8)	2928.3(35) 4000.0()	2294.5(19)
50	Μ	2431.8(38)	2181.0(61) 64.0(1)	211.2(33)
75	М	1904.0(119)	5248.3(41) 672.0(42)	1756.9(42)
100	Μ	1152.0(72)	2431.8(38) 1568.0(49)	698.2(96)
200	M	1440.0(90)	686.8(91) 2224.0(139)	2656.0(83)
300	Μ	480.0(30)	704.0(22) 800.0(25)	1547.7(37)
400	M	32.ũ(4)	334.6(16) 928.0(23)	1088.0(34)
500	Μ	δ(Ο)	320.0(4) 144.0(3)	7.3(1)

		EUKRO	EUKRDHNIA		STAGE	II			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	0(0)	0(3)	0(0)
25	Μ	ΰ(0)	0(0)	Ū (3)	Ū (8)
50	M	Ũ (0)	0 (0)	0(33	Ő (ō,
75	M	0(0)	0(0)	ac	1)	Ő C	n)
100	Μ	Û (8)	0(9)	<u>0</u> (33	D (0)
290	M	Ű(0)	6 (0)	Ő (1)	0(0)
300	м	176.0(11)	160.00	5)	Û (3)	ŌĊ	ů)
400	Μ	0 (8)	104.6(5)	0(1)	0 (0)
500	Μ	6 (0)	160.00	2)	0(3)	Ū Č	0)

		EUKRO	OHNIA BATHYFELAGICA		ALVARIN	N C			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	м	0(0)	0(0)	0(3)	0(0)
25	M	ΰ(0)	0(0)	0(1)	.0 (0)
50	Μ	Û (0)	0 (0)	Û (1)	6 (0)
75	M	ΰ(0)	0(0)	0(3)	0(0)
100	M	0(0)	6.0	0)	90	3)	0(8)
200	м	Û (C)	0.0	0)	0 C.	1)	0(0)
300	ĸ	. 0(0)	0 (0)	0(1)	0 (0)
400	Μ	216.0(27)	439.2(21)	608.0(13)	352.0(11)
500	M	74.7(28)	1760.00	22)	304.0(13)	116.4(16)

		SAGIT	ΤA	ELEGANS VE	RILL			
		NIGHT-1		NIGHT-2		DAY-1		DAV-2
10-0	M	0(0)	91.4(3)	3 (33	0(0)
25	M	0(63	251.00	3)	0 (3)	0(0)
50	×	192.5(3)	8.9(4)	0(1)	0(0)
75	м	166.7(1)	128.0(2)	0(1)	0(0)
100	-M	16.0(1)	21.3(1)	0(3)	0(0)
200	M	Û (0)	36.2(6)	352.0(22)	448.0(14)
300	м	0(0)	0(0)	0(1)	4810.5(115)
400	м	0(60	8 (0)	32.0(1)	160.0(5)
500	M	Û (0.)	0 (8)	0(37	0(0)

		SAGIT	TA 🗈	AXIMA						
	NIGHT-1			NIGHT-2		DAY-1		DAY-2		
16-0	M	0 (0)	0(0)	6 (-30	0(0)	
25	M	6(0)	167.3(2)	θ(3)	0(0)	
50	м	ũ (0)	£ (0)	0(3)	0 (0)	
75	th:	Ű (.0)	6 (0)	Ú ())	0(0)	
100	M	6(ü)	- G (3)	9(3)	6(0)	
200	м	ε (0)	G (3)	6(D	0(9)	
300	м	166.7(1)	0(ð)	Θ(3)	Ū (0)	
400	M	6(0)	0(3)	125.0(1)	0 (0)	
500	M	ε(8)	0(0)	0(33	0 (0)	

	IMMATURE		CHAETGGNATH		
		NIGHT-1	NIGHT-2	DAY-1	BAY-2
10-0	М	1422.3(9)	1219.1(13)	0(3)	254.7(2)
25	M	1354.6(5)	6(0)	ü(1)	120.8(1)
. 50	M	895.9(14)	1465.9(41)	831.9(13)	38.4(6)
75	Μ	1680.0(105)	768.0(6)	304.0(13)	752.9(18)
100	м	1472.0(92)	0(0)	1600.0(5))	778.2(107)
200	M	1584.6(99)	249.1(33)	48.0(3)	1856.0(58)
300	Μ	736.0(46)	1600.0(50)	896.0(23)	794.8(19)
408	Μ	288.0(35)	1087.6(52)	576.0(19)	1120.0(35)
500	M	4.6(1)	1046.0(13)	96.0(5)	43.6(6)

		TOMOI	PTERI	S SP						
		NIGHT-1		NIGHT-2		DAY-1		0AY-2		
10-0	м	316.1(2)	243.8(2)	0(3)	0 (0)	
25	м	0(6)	5689.3(34)	0(3)	966.1(8)	
50	M	831.9(13)	375.4(21)	64.8(1)	89.6(14)	
75	M	864.0(54)	192.0(3)	128.0(9)	1840.5(44)	
100	Μ	160.0(10)	256.0(4)	32.0(1)	36.4(5)	
200	м	32.0(2)	20.1(4)	128.0(3)	96.0(3)	
300	м	64.0(4)	64.0(2)	192.0(6)	251.0(6)	
400	м	24.0(3)	62.7(3)	0(1)	384.0(12)	
500	м	56.0(14)	240.0(3)	80.0(j)	80.0(11)	

		FEOBIL	JS N	1ESERES						
		NIGHT-1		NIGHT-2		DAY-1		DAY	-2	
10-0	M	0(0)	0(0)	0(3)		0(8)
25	*	Q (0)		8)	0(3)		0(0)
50	M	0(0)	0(0)	0(3)		0.0	0)
75	M	-8 (Ũ)	0(0)	0(3)	e'	0(Ö)
100	M	6(0)	0(8)	0(3)		8(0)
200	м	0 C	0)	8(0)	0(3)		0(0)
300	м	80.0(5)	96.0(3)	0(j)		0(0)
400	M	8.0(1)	41.8(2)	32.01	1)		0(0)
500	M	0(0)	160.00	2)	55.6(1)		D T	01

		MEDU	SAE						
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	731.5(6)	6 (33		111
25	Μ	2438.3(9)	1004.00	12)	0(3)	0(0)
50	М	192.0(3)	6(g.)	8(3)	19.2(3)
75	M	48.0(3)	512.0(4)	32.0(2)	83.71	2)
100	M	83.3(1)	192.00	3)	64.0(2)	29.1(4)
200	M	32.0(2)	22.61	3)	0(3)	128.0(4)
300	M	0(8)	64.0(2)	192.0(.5)	167.3(4)
400	м	48.0(6)	20.90	1)	0(3)	96.0(3)
500	M	8.0(2)	160.0(2)	16.0(1)	7.3(1)

		SIPH	DNOPH	ORE NECTO	PHCR	E			
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	М	0 (0)	÷ 5 (0)	3 (3)	0(0)
25	M	. 0(0)	1840.6(11)	0 (3)	8 (0)
50	М	959.9(15)	1251.4(35)	384.0(5)	57.6(9)
75	M	1056.0(66)	1408.1(11)	208.0(13)	836.6(20)
100	M	432.0(27)	895.9(14)	736.0(23)	218.2(30)
200	M	272.0(17)	113.2(15)	8(33	704.0(22)
300	M	1136.0(71)	1856.0(58)	2048.0(64)	920.3(22)
400	M	68.0(11)	397.4(19)	224.0(7)	640.0(20)
500	м	12.0(3)	1360.0(17)	112.0(73	80.0(11)

		RCUND EG	5			
		NIGHT-1	NIGHT-2		DAY-1	DAY-2
10-0	M	8230.5(5)	0(0)	- 0(3)	891.6(7)
25	м	26+5.5(5)	10457.5(. 43	2000.0(2)	3773.6(4)
59	M	8000.0(16)	12514.0(28)	3166.7(19)	16000.0(24)
75	M	5792.0(362)	9500.0(19)	3875.0(62)	12854.0(59)
100	M	3416.7(41)	4607.7(72)	6848.0(214)	2651.5(35)
200	м	13500.0(81)	1101.9(73)	5456.0(341)	5333.3(20)
300	M	4166.7(25)	6000.0(30)	6000.6(4))	13235.3(81)
40.0	М	1240.0(31)	3268.0(25)	8 ())	0(0)
500	Μ	544.0(34)	3200.0(40)	2555.6(43)	1136.4(25)

	GLOBS					
	NIGHT-1	NIGHT-2	DAY-1		DAY-2	
М	6(0)	5120.3(42)	0(3)	6241.2(49)
M	0(0)	4852.6(29)	0(1)	17924.5(19)
M	0(0)	357.5(10)	0(Ð	128.0(20)
M	b(0)	2176.1(17)	0(1)	1673.2(40)
M	Ú(0)	320.0(5)	8 (1)	327.3(45)
M	1616.0(101)	52.8(7)	- O C	-11	2560.0(80)
M	368.0(23)	1952.C(€1)	0(3)	3346.41	80)
۴	336.0(42)	1861.4(89)	0(1)	1280.0(4G)
M	192.0(48)	1888.6(118)	0(1)	392.7(54)
	*****	GLOBS NIGHT-1 M U(0) M U(0) M U(0) M U(0) M U(0) M 1616.6(101) M 368.0(23) M 368.0(42) M 192.6(48)	$\begin{array}{c c} GLOBS \\ NIGHT-1 & NIGHT-2 \\ M & U(& D) & 512C_0 \ 3(& 42) \\ M & U(& D) & 4852 \ c(& 29) \\ M & U(& O) & 357 \ s(& 13) \\ M & U(& O) & 2176 \ c(& 11) \\ M & U(& O) & 2176 \ c(& 11) \\ M & U(& O) & 320 \ c(& O) \\ M & 1616 \ c(101) & 52 \ c(& 7) \\ M & 366 \ c(& 23) & 1952 \ c(& c1) \\ M & 336 \ c(& 42) & 1861 \ 4(& 65) \\ M & 192 \ c(& 48) & 1886 \ c(c(113) \end{array} \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

		BOLIO	LID						
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(8)	0(9).	6 (1)	8(0)
25	M	÷ (0)	G (0)	0(3)	0(8)
50	M	5 (6)	9(3)	0(3)	0(0)
75	M	6(ũ)	128.0(1)	101	33	-0 (0)
100	M	ΰ(0)	0.1	3)	0(33	90	8)
200	M		0)	6 (3)	0())	0 (0)
388	M	ΰ(6)	0(0)	0())	6(0)
400	M	64	6)	0 (0)	0(1)	0(0)
600	M	Ð (0.1	0.0	0.5	0.7	15	n /	0.5

		SALPS	TYPE A						
		NIGHT-1	NIG	HT-2		DAY-1		DAY-2	
10-0	Μ	6(0)	0(6)	0(3)	0.0	0)
25	м	U C	0) 8	3.7(1)	0())	6 (0)
50	M	6.0	0)	τ.	0)) J (1)	6 (0)
75	M	τ.	C)	0(0)	04	33	0(0)
100	м	16.0(1)	0(8)	0(-j)	21.8(3)
260	μ	3504.0 (21)	9) 42	2.61 5	6)	Ű (33	3328.0(1	047
30-0	M	1040.01 6	5) 148	8.01 4	4)	1184.01	37)	2007.81	4.8)
400	M	336.61 4	2) 106	6.71 5	1)	1184.0(37)	832.0(26)
500	Μ	16.0(4) 25	6.0(1	6)	336.0(21)	116.4(16)

		CIKO	PLEUR	A					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	2054.5(13)	2194.4(18)	925.9(4).	7387.5(58)
25	M	2709.2(10)	2175.3(13)	0(D	2053.0(17)
50	M	0(0)	357.5(10)	333.3(2)	19.20	3)
75	Ħ	288.0(18)	1024.1(8)	0(3)	0(0)
100	M	ũ (0)	512.0(8)	0(3)	152.7(21)
200	M	144.00	9)	52.8(7)	448.3(28)	160.0(5)
300	M	240.0(15)	64.0(2)	128.0(*)	585.6(14)
400	M	224.0(28)	481.0(23)	256.0(5)	256.0(8)
500	M	32.0(10)	128.0(8)	16.0(1)	65.5(9)

		TRIPY	LEA						
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
•0 -	M	6(0)	0(0)	0(3)	8 (0)
25	м	0(0)	° C (0)	0(3)	6 (0)
50	M	0(0)	0(0)	0(3)	8 (0)
75	M	Θ(0)	8(0)	8 (33	6(0)
00	Μ	G (0)	6(0)	0 (1)	0 (0)-
0 0	M	Ū (0)	0(0)	0(0)	32.0(1)
00	M	θ(0)	0(0)	0(3)	125.5(3)
0 0	M	0(0)	83.7(4)	Ű (33	32.0(1)
0 0	M	64	0)	0(0)	0(3)	0(0)

		RADI	DLARI	A					ź
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	M	0(6)	0(0)	9(3)	0(0)
25	M	Ű (0)	0 (0)	0(3)	0 (0)
50	M	- 0(0)	6(0)	6(3)	- 0(0)
75	Ħ	0 (0)	0(0)	9 (3)	0(0)
108	M	83.3(1)	64.0(1)	32.0(1)	7.3(1)
200	M	1232.0(77)	437.7(58)	96.0(5)	1248.0(39)
300	M	464.0(29)	64.0(2)	0(.)).	836.61	20)
480	M	168.0(21)	167.3(8)	0(3)	448.0(14)
503	M	336.0(21)	448.0(28)	1055.6(13)	210.9(29)

		FORAMINIFERA		
		NIGHT-1 NIGHT-2	DAY-1	DAY-2
10-0	M	70781.9(43) 18276.0(18) 25000.0(108)	10613.6(8)
25	Μ	16931.21 32)104575.21 40) 38000.0(33)	32075.5(34)
50	M	99000.0(99) 35307.3(79) 16500.0(93)	56000.0(64)
75	M	19200.0(96) 18500.0(37) 12187.5(195)	57254.9(219)
100	м	18875.0(151) 14911.0(23)) 20192.0(631)	11931.8(105)
200	M	3333.3(20) 528.3(39) 1216.0(75)	3200.0(12)
300	M	6900.0(36) 12800.0(64) 2550.3(17)	13562.1(83)
408	Μ.	1560.0(39) 15163.4(116	5) ())	5600.0(35)
580	M	528.0(33) 800.0(1)	2888.9(52)	1681.8(37)

		FISH	LARV	AE					
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	м	0(0)	6(0)	0(33	0 C	0)
25	Μ	0 (0)	-C (0)	0(1)	483.0(4)
50	м	128.0(2)	ΰ(9)	8(3)	8 (0)
75	M	16.5(1)	0(0)	0(3)	0(0)
100	М	0(0)	0(0)	6(33	86	0)
200	Μ	0(0)	0(0)	0(1)	0.0	6)
300	M	0 C	0)	0(0)	0(1)	0(0)
400	м	0(6)	0(0)	0(1)	0-0	0)
500	M	0(0)	6 (0)	6(3)	0 (0)

		CTENO	PHOR	E						
		NIGHT-1		NIGHT-2		DAY-1		D#Y-2		
10-0	M	£ (0)	0(0)	0(3)	9 0 0	0)	
25	M	0(0)	0(9)	0(3)	8(0)	
50	м	0(0)	6(0)	0(3)	0(0)	
75	M	Û (0)	0(0)	6(33	. 0(0)	
109	M	0(0)	0(0)	0(3)	0(0)	
200	M	. 0(0)	10 C	0)	0.0	1)	0(0)	
300	М	0 (0)	0(0)	0(33	41.8(1)	
400	M	6 (.0)	6 (0)	01	1)	0(8)	
500	М	Ű (8)	.0 (0)	Q . (*	3)	0 (0)	

		METRI	IDIA	CURTICAUD	A M				
		NIGHT-1		NIGHT-2		DAY-1		DAY-2	
10-0	Μ	0(9)	Ð (3)	8(33	0(0)
25	Μ	0(0)	0(0)	10	3)	10	0)
50	M	6(Ũ)	0(0)	0.(3)	0(0)
75	M	5 (0)	8(8)	0(1)	0 (0)
100	M	6(0)	6 (0)	6(1)	6 (0)
200	M	0(0)	0(0)	0(3)	9 (0)
300	• M	3 (0)	0(0)	0(3)	0(0)
400	M	206.01	25)	. Ç (8)	0 (3)	0(0)
500	M	6 (-0)	0(0)	6 (1)	0 (0)

METRIDIA PROBLEM SP COPEPODITE

		NIGHT-1	NIGHT-2		DAY-1		DAY-2	
10-0	M	0(0)	· 0 (8)	8 C	33	0.(0)
25	M	0(0)	01	3)	G (3)	0(0)
50	M	895.9(14)	0(3)	9(3)	0(8)
75	M	6(0)	G (()	144.0(- 3)	0(0)
109	M	0(0)	81	8)	0())	6(0)
200	M	0(0)	9(3)	. 0(1)	-D (0)
300	M	4544.0(284)	0 (9)	160.0(5)	0(0)
400	M	6 (0)	0(3)	160.0(5)	0(0)
500	M	6(0)	0 [0)	208.0(13)	0(0)