

R A M U - A REPORT ON INTER-SPECIES RELATIONSHIPS AND THE TRANSPORT OF A LARGE MARINE MAMMAL.

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Introduction

On arrival at Windsor Safari Park on 1 September, 1970, Ramu, a male killer whale (*Orcinus orca*), weighed just over 1000 kgs and measured 4 metres in length. During this time he was consuming about 18.2 kg of food. He was introduced to the five dolphins, soon after his arrival. Over the next few years, individual relationships were built up. I am not going to deal with these years as I did not begin working at the Dolphinarium here until September, 1975.



What I hope to achieve with this paper is to pass on my own observations of the relationships between Ramu and the dolphins and then deal with the way in which he was safely transported to California.

The Dolphinarium at Windsor has a main pool with a capacity of 1½ million litres and a smaller connecting holding pool with a capacity of 225,000 litres. The turnover is approximately 2½ hours. The holding pen was used for gating Ramu during shows

and the normal practice between shows and at the end of the day was to release all the animals into the main pool but leaving the holding pool gate open.

As regards the other animals in the pool, we had five Atlantic Bottlenose Dolphins, *Tursiops truncatus*, at that time - two females, Honey and Lulu and three males, Snappy, Smartie and Cookie. As far as the dolphins were concerned, the oldest - Smartie - was generally regarded as dominant. Even Ramu seemed to respect this. For quite a while it had been mistakenly believed that Cookie was the dominant animal, but he has more of a bullying nature and would try to bully any other animal in the pool - with the exception of Smartie.

Of course, keeping an animal as large as Ramu was bound to cause a few problems. He was growing at a rate of approximately 13.1 cms in length and 500 kgs a year. His food intake was also increasing dramatically and, prior to his departure, he was receiving on average 80 kgs of food per day .

The relationships

Keeping animals that would normally be regarded as predator and prey together in the same environment brought some interesting points to the surface.

He was the only animal that I have seen that showed definite masochistic tendencies. Once the dolphins were put into their holding pens prior to a show, Ramu seemed to get a strange delight by putting his rostrum through the bars and allowing Cookie - the bully - to bite on it. This happened quite often and there never seemed to be a reason for it.

As in any other Dolphinarium, one of the major problems was boredom of the animals and if Ramu was not constantly occupied then he would find ways of amusing himself. One of his favourite behaviours was to see just how much he bent the bars of the dolphins' holding pens. He found, late in 1975, that although these bars had a diameter of 5 cms, if he pushed hard enough they would bend well. Unfortunately, if we had not reacted to him the first time we saw him do this, it would probably not have gone as far as it did. But, as we did react, Ramu quickly found that this upset us and it eventually got to the point that whenever he was in a bad mood with us, he would swim over and bend the bars a little more. At the end of 1975, he also had another way of letting us know that he was upset about something. He would fill his mouth to capacity with water and spray this all over a particular person. We tried to get him out of this habit by trying to avoid him but this only made him sneaky about it. He would swim past us as though to ignore us and then would suddenly flick his head back and try to flip a mouthful of water back over his tail. However, we were able to get him out of this habit in the following way. The usual method of disciplining him was to pick up his food and stand at the back of the stage but this never really worked. A much more effective way of getting through to him was to pick up his food, walk away and not return at all. After about a week of this treatment he gave up the regular rinsing and would seldom do it again.

He got on quite well with all the dolphins and, in particular, formed some sort of fraternal relationship with the two female dolphins - with Lulu in particular - to whom he was fiercely protective. Any time that Lulu was involved in a fight, he

would move in and break it up and not allow any of the other animals near her. It got to the stage that he would even intervene if normal sex-play was occurring between the dolphins. If things were too hectic in the main pool he would let Honey and Lulu into his holding pen, he would then follow and shut the gate behind him thus shutting the three males out in the main pool. This gate was heavy and the dolphins could only open it and shut it with some difficulty. Even if we attempted to open the gate, Ramu would usually put his rostrum against it and refuse to let us. But once we had put the male dolphins into their holding pens, he would allow us to open the large gate. The only sexual interest that Ramu seemed to show in Lulu was when he kept nosing at her genitals. He was never seen to have an erection during this practice and whether Lulu enjoyed it at all can only be guessed at, but she never seemed to be in any great hurry to move away from him. The main aspect of this relationship was the strong bonds that appeared to exist.

With the three male dolphins though, he had a completely different attitude and this was by far the most common occurrence in the pool. A great deal of homosexual behaviour took place and this was usually on the part of two of the male dolphins in particular - Cookie the bully and Snappie the youngest.

Only sometimes would Smartie take part or show interest in these proceedings and this would usually depend on what sort of mood he was in. There were three actions that Ramu used to take to the dolphins' advances :

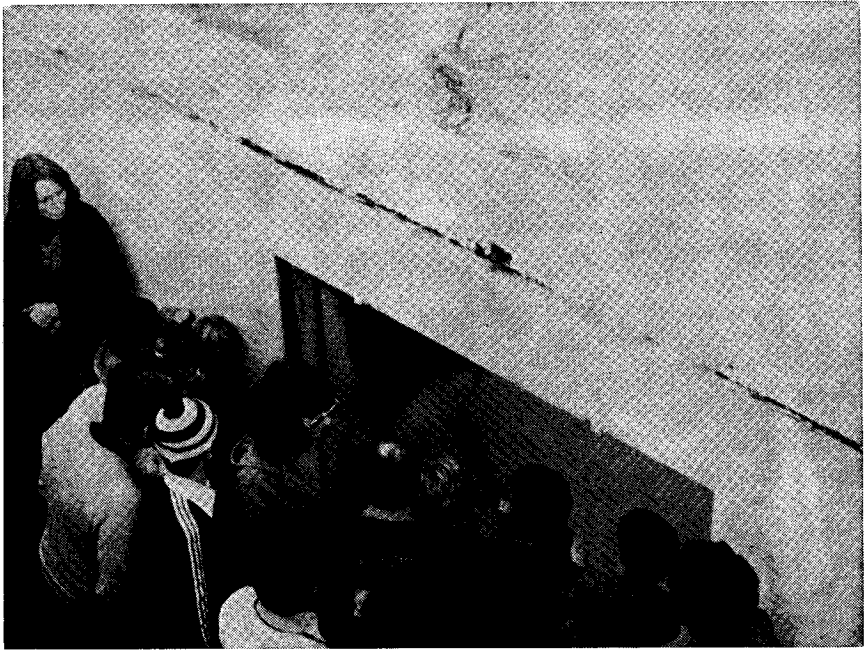
- a) He would just swim off and shut himself in his own pen thus preventing the dolphins any access.
- b) Sometimes a fight would develop between him and two or three of the male dolphins. (The females would usually stay out of the way during these frays, as did Smartie quite often). There were never violent, 'blood-letting' skirmishes but involved a great deal of fast swimming, twisting, turning and jumping to try and avoid the dolphins. Ramu's skin - mainly above the lumbar spine - was usually covered in shallow scratches and teeth marks. It was odd that Ramu was never seen to bite at the dolphins himself, but once, and only once, did I see evidence of Ramu's teeth marks on a dolphin. During the beginning of 1976, Smartie became quite ill and was suspected to be suffering from stomach ulcers. During this time there was also a dominancy struggle between Cookie and Smartie which, for a brief time, Cookie won. I did not witness the fight in which Smartie received the teeth marks as it occurred during the night but long, reasonably deep teeth marks were apparent on his flanks. They were quite obviously from Ramu's teeth. However, on recovery from the ulcers, Smartie once again resumed his dominant position and no more problems of this type were experienced.
- c) (Plate 2) But this was the usual reaction to the dolphins' advances. He would just lie there, either on the surface or half-way under, and almost ignore what the male dolphins were doing. He seemed to adopt a couldn't-care-less attitude towards them and, as you can see, they did penetrate quite often. Again, I never observed Ramu with an erection during the performances but he was seen to have one once. One of the dolphins promptly bit him and left a perfect set of teeth marks on it!
Perhaps these homosexual behaviours were another example of the masochistic tendencies I mentioned earlier as this explains the not-seeming-to-care attitude.

Although these behaviours used to last for quite some time, the usual end to them would be that Ramu would eventually swim off and begin side-slapping, thus keeping the dolphins away from him.



But, apart from these behaviours, there was another behaviour which used to occur sometimes. The usual order of the show was females, males and then Ramu. On occasion when Ramu was released after the males' performance and had started on his part of the show, the following would occur. There would be a high-pitched call from the dolphins' pen on which Ramu would swim straight over and start screeching and spraying water over the top of the bars. Nothing we could do would induce Ramu to stop what he was doing, with the usual result that we would have to stop the show. (Sometimes we would hear nothing prior to this behaviour so we assumed that at these times there had been a sound inaudible to us.) We were never really sure which animal this was that made the sound but we did suspect Cookie as he was always watching Ramu when this behaviour occurred.

If the dolphins were released at this point, and this was the usual procedure, or Ramu would sit there to the next show, a great deal of fast swimming and squabbling took place. It almost appeared as though the dolphins had been taunting Ramu and possibly points to a communicative ability between the two species. Whether this was a learnt or a normal and natural ability, I could not really say but it certainly seemed to exist. Perhaps the dolphins were even trying to imitate the trainer's whistle? Like other dolphins I have seen, Ramu seemed to enjoy 'sleeping' on the pool bottom. Lying quite immobile like this he was capable of giving people a nasty shock if they had not seen this behaviour before.



One of his favourite behaviours towards the public happened quite often. He would sit at this large window (Plate 3) 'pulling faces' at people - opening his mouth, closing his eyes and poking out his tongue - and when he felt that there were enough people gathered, he would spray a mouthful of water over the top. He would then swim off and completely ignore everyone. A short while later he would return. By this time there would be a new set of people gathered and he would go through the whole performance again - much to the delight of the people who had already been drenched !

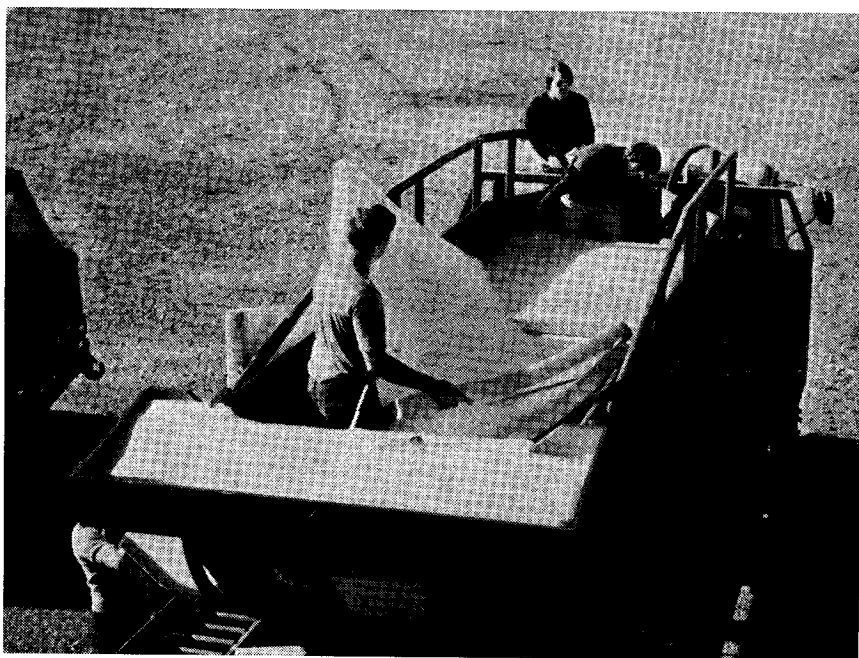
These are just a few of Ramu's peculiarities for, by this time, it was becoming obvious that Ramu was outgrowing the conditions that we had for him. His performance was suffering due to the difficulties he was experiencing re-entering the water cleanly, and perhaps some of these odd behaviours were brought on due to this fact.

The transport

Negotiations were begun with Sea World in San Diego early in 1975 for a possible sale or exchange of marine mammals but, due to the many new laws which had been passed, quite a few initial difficulties were experienced. However, on 17 October, 1976, Ramu finally made the long journey to his new home.

Although preparation for this journey had been in progress - on and off - for about twelve months, there were still some last minute alterations that had to take place. At the end of 1975, Ramu had been beached to obtain accurate measurements. (This beaching was a simple procedure, by the way, and one which Ramu had become quite used to over the years. Each month since his arrival at the Park, we had blood-sam-

pled him using this same method. He would be put into the holding pen, a watertight gate inserted and then all the water was pumped out thus lowering him onto the pool bottom). The crate for this transport was being constructed in San Diego so all these measurements were sent there. The crate was eventually sent here in August, 1976, but due to the departure date being set back, it was put into storage and not taken out until three days prior to Ramu's departure. When it was taken out of storage, it was quite obvious that there was no way that he was going to fit into it. Ramu was once more beached and accurate measurements taken and these proved the point. Some extremely rapid alterations were going to be needed as Ramu had grown by over half a metre in length and about $12\frac{1}{2}$ cms in width. He now measured 5.94 metres long and was 1.23 metres at his widest point. It was going to be interesting to see just how much he weighed. The extra length could be made by fitting a tailboard so the only modification required was an overall widening of about 30 cms. We were fortunate in that our Maintenance Team were able to cut, weld, glue and re-fibreglass the now new crate in under 24 hours, allowing us to proceed on schedule. Our American colleagues, Dr Lannie Cornell, Don Goldsberry and Ed Asper, assisted in the whole operation (Plate 4).



Two blood samples were taken in the final week to ensure that Ramu was in the best of health and to enable the health certificates to be signed. His food was also cut down prior to his departure. This was done to prevent any vomiting and to reduce defecation during the journey to a minimum. Two days before departure, he received a total of 27 kgs of food and the day before he left he received nothing.

The next step was the packing of the crate. Usually in the transportation of marine mammals such as dolphins, the stretcher is slung inside a waterproof crate but this was going to be a little different. The complete interior of the box was packed with sheets of foam rubber. This meant that Ramu would actually be sitting in the stretcher but he would be supported by the foam rubber. This would make it a little easier on him in that he would not have all his own weight bearing down on him. Once this was layered high enough, the stretcher was then placed into position. The slots for the pectoral fins were then marked, the stretcher removed and then deep slots for the pectoral fins were cut into the foam rubber. These slots were cut so that they were 1.06 metres high at the anterior end and 1 metre high at the posterior end. The widest part was approximately $\frac{1}{2}$ metre. All the rest of the equipment had been checked and re-checked ready for an early start on the 17th.

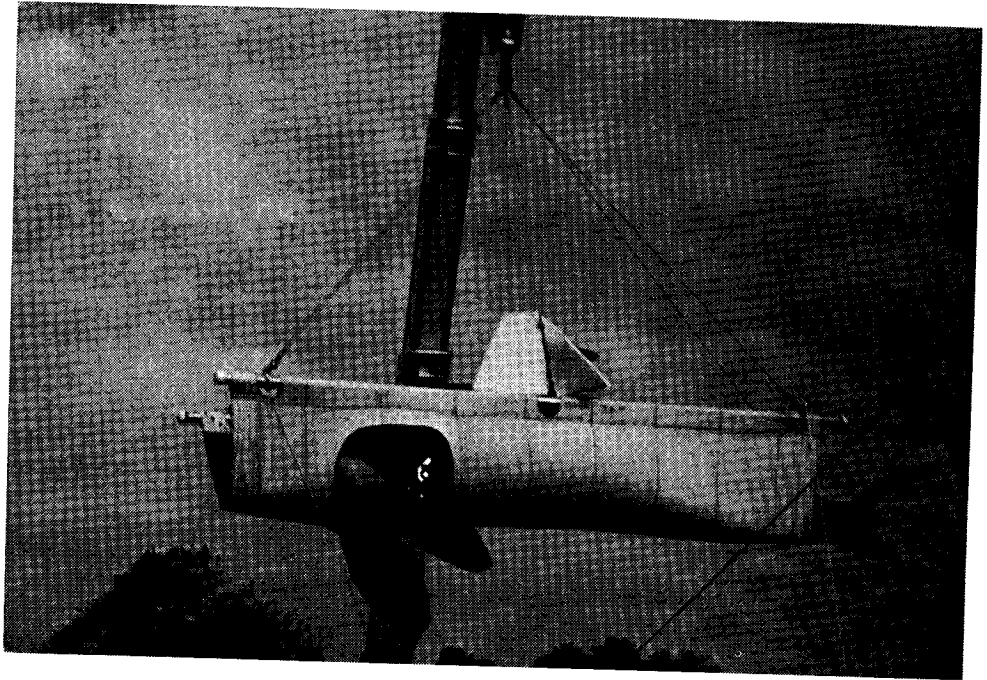
However, although we were prepared, there were a few things which did not go quite according to plan.

Although a schedule had been drawn up, by 6.00 am this had been thrown out of the window. It was by this time that we had overcome our first problem - that of separating the dolphins. Being so early in the morning, they were quite confused to say the least. The water-tight door had been secured and the water level was now dropping. By this time the whole operation was being made to look like a major Hollywood production! There were a great number of press and television crews present. Our American colleagues who had stayed away until now, arrived and a driver was despatched to collect the lorry complete with transport crate. This duly arrived outside the holding pool and, whilst manoeuvring into position, was promptly driven over a steel fence post! This had the effect of tearing a brake cylinder out. An urgent message was sent to Heathrow and a second truck was sent, but thankfully, this was not needed as, once again, our Maintenance Crew came through with some quick repairs.

So, once more, everything was ready and Ramu continued on his way to the pool bottom. By 7.30 am everything was ready and in place for the final movements. But, once more, this was not to be. The aeroplane - en route from San Diego - had been held up in Belgium and was not expected a while. So, once more, Ramu was raised and everyone began to wait. At least this gave everyone the chance for coffee and some well-earned breakfast.

Finally, at 9.30 am, the all-clear was given and the operation went ahead. The water level was dropped until it was about waist height and Ramu was beached. The wet-suited helpers then descended into the pool to receive the stretcher which was now being lowered through the non-existent roof. This was lowered onto Ramu's right side. By this time it was necessary to make Ramu slightly buoyant so the level was increased to approximately chest height. This was done to allow passage for the left side of the stretcher underneath Ramu's chest. Once this was done, the task was now to position him onto the stretcher (Plate 5). There were now seven men in the pool and it needed every one of them to push and shove Ramu over onto the stretcher. Once this was achieved, Ramu gave a flick of his tail and promptly moved off the stretcher. One more time everyone heaved and pushed and this time the left side of the stretcher was brought up and connected to the crane's jib.

It was important at this stage that the sling was made as smooth as possible so as to prevent any stretcher-burns to the animal. Once everything was set the lifting began.



Being used to seeing him swimming in the pool, it was an incredible sight to see Ramu being raised over seven metres in the air. It was now that we were able to see just how much he weighed. We had always estimated that he was in the region of 3000—3500 kgs but he actually totalled just on 4250 kgs (Plate 6). It was easy to see the extra strain that was being put on him by the way in which he bulged around the pectoral openings. He was carefully lowered onto the back of the lorry and onto the waiting crate. Before the crane was disconnected it was made doubly sure that he had been lowered and was sitting exactly correctly. Once this was completed and the crane removed, there was now the task of coating him with cod-liver ointment (Plate 7). All available parts of him were thoroughly dried with towels and the grease solution was then applied.



While this was going on, the crate was being filled with water but this was discontinued as it was felt that it would be easier to do this at the airport. This was just as well as there was still one major problem to come. A small amount of ice was packed in the available spaces and now Ramu was ready to begin the journey from Windsor to Heathrow and the waiting aircraft.

This part of the procedure had its amusing moments also. It was more interesting to note the expressions on the faces of the many motorists who saw the whole convoy.

On arrival at Heathrow, everything was in readiness for us. After the necessary Customs formalities, Ramu was raised to the level of the aeroplane's doorway. It was here that

the final problem confronted everyone. Originally, the crate would have fitted through the doorway but, of course, originally was twelve months ago. There was only one way open - to remove the tailboard and try and manhandle Ramu's tail around and into the 'plane. (For most of the time Ramu had been at Windsor, he had been blood-sampled from beneath his dorsal fin as anyone who touched his tail stood a good chance of being used as a football. He had never liked anybody handling his tail for some reason or other. So, understandably, it was with some apprehension that this method was tried.)

But, thankfully, whether he was so over-awed by what was happening to him or not, he was extremely quiet. Even with three or four pairs of hands touching him, he did not flick his tail once. In fact, during the entire operation, he did not show any signs of aggression or of being upset at all. He did vocalise a great deal but this was not a stressful sound. It was a good job that the crate was no more full of water than it was, as this would then have been an impossible task. But finally, after a great deal of pushing and prodding, Ramu and the crate were finally put on board the Flying Tigers Stretch DC-8. The Fire Brigade was now summoned and the crate was half filled with fresh clean water. One interesting point here was that this was first checked to see that it was of drinking quality.

Ice was then packed into every available nook and cranny and all the spray equipment was set up. Everything that could be was fastened down and the aircraft was cleared of all personnel who were not making the trip.

Finally at 13.15 hours, Ramu and the Americans took off from Heathrow bound for Sea World. Once he arrived there, he was taken straight off and put into a pool with some other dolphins. He apparently settled down quite quickly.

The whole operation, apart from the minor problems, went extremely well and Ramu was out of the water for only 18 hours.

I can only finish this paper by wishing the staff at Sea World as much success with Ramu - now renamed Winston - that we had and as few major problems with him as we experienced.

One final point: once Ramu had left Windsor, there seemed to be a general relaxing feeling take place. The dolphins began to act more like dolphins and a great deal more normal sexual activity has been taking place. Perhaps they were more wary of Ramu than we realised.

Conclusion

I had an excellent chance to study the relationships between these six animals in the twelve months that were available to me. Some of the observations were curious and even more so when you consider that the animals concerned are normally predator and prey. It would be interesting - but difficult - to know just how far Ramu's predatory instincts had been reduced.

And is it possible for one species of marine mammal to communicate with another? It certainly seemed so at times.

We had anticipated quite a few difficulties with the transport because of the large weight and long distances involved but, due to the tremendous co-operation and help given by everyone concerned - including Ramu - this went off without a hitch.