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 $\clubsuit_S$  is a combinatoric principle weaker than  $\lozenge_S$ . It states that, for S stationary in  $\kappa$ , there is a sequence  $\langle A_{\alpha} \rangle_{\alpha \in S}$  such that  $A_{\alpha} \subseteq \alpha$  and  $\sup(A_{\alpha}) = \alpha$  and with the property that for each unbounded subset  $T \subseteq \kappa$  there is some  $A_{\alpha} \subseteq X$ .

Any sequence satisfying  $\Diamond_S$  can be adjusted so that  $\sup(A_\alpha) = \alpha$ , so this is indeed a weakened form of  $\Diamond_S$ .

Any such sequence actually contains a stationary set of  $\alpha$  such that  $A_{\alpha} \subseteq T$  for each T: given any club C and any unbounded T, construct a  $\kappa$  sequence,  $C^*$  and  $T^*$ , from the elements of each, such that the  $\alpha$ -th member of  $C^*$  is greater than the  $\alpha$ -th member of  $T^*$ , which is in turn greater than any earlier member of  $C^*$ . Since both sets are unbounded, this construction is possible, and  $T^*$  is a subset of T still unbounded in  $\kappa$ . So there is some  $\alpha$  such that  $A_{\alpha} \subseteq T^*$ , and since  $\sup(A_{\alpha}) = \alpha$ ,  $\alpha$  is also the limit of a subsequence of  $C^*$  and therefore an element of C.