COMPACT-LIST-SEARCH(key, $next$, $head$, n, k)

```
1   i = head
2   while i ≠ NIL and key[i] < k
3       j = RANDOM(1, n)
4       if key[i] < key[j] and key[j] ≤ k
5           i = j
6           if key[i] == k
7               return i
8       i = next[i]
9   if i == NIL or key[i] > k
10      return NIL
11  else return i
```