Ruby master - Bug #18065

3.0.2 - possible memory leak in Hash#transform_keys!

08/07/2021 12:03 AM - sean@duke.edu (Sean Dilda)

<table>
<thead>
<tr>
<th>Status:</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority:</td>
<td>Normal</td>
</tr>
<tr>
<td>Assignee:</td>
<td></td>
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<tr>
<td>Target version:</td>
<td>ruby 3.0.2p107 (2021-07-07 revision 0db68f0233) [x86_64-linux]</td>
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<tr>
<td>Backport:</td>
<td>2.6: DONTNEED, 2.7: DONTNEED, 3.0: DONE</td>
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**Description**

I found what may be a memory leak in Hash#transform_keys! in version 3.0.2

This sample code will reproduce the issue. It quickly consumes gigabytes of memory when running on 3.0.2, but has very normal memory usage on 3.0.1. I tested using the ruby:3.0.2 docker image.

```ruby
h = { value1: 1, value2: 2 }
loop { h.transform_keys!(&:to_s) }
```

The issue doesn't appear if there is only one key in the hash.

**Associated revisions**

- **Revision e5dd40b1** - 08/07/2021 03:34 AM - nobu (Nobuyoshi Nakada)
  Stop force-recycling evacuated array [Bug #18065]

- **Revision d6b8b37a** - 08/08/2021 03:00 AM - nagachika (Tomoyuki Chikanaga)
  merge revision(s) e5dd40b1f3a11f48d566413ab347ce0cfff9a94960: [Backport #18065]

  Stop force-recycling evacuated array [Bug #18065]

  ```bash
  ---
  hash.c | 1 -
  1 file changed, 1 deletion(-)
  ```

**History**

- **#1 - 08/07/2021 01:06 AM - jeremyevans0 (Jeremy Evans)**
  - Backport changed from 2.6: UNKNOWN, 2.7: UNKNOWN, 3.0: UNKNOWN to 2.6: DONTNEED, 2.7: DONTNEED, 3.0: REQUIRED

  It looks likely related to 84d9a9af0b49d095f41acb9832f8b12f506e19.

- **#2 - 08/07/2021 03:41 AM - nobu (Nobuyoshi Nakada)**
  - Status changed from Open to Closed

  Applied in changeset github/5d4d0b13a11f48d566413ab347ce0cfff9a94960.

- **#3 - 08/08/2021 03:01 AM - nagachika (Tomoyuki Chikanaga)**
  - Backport changed from 2.6: DONTNEED, 2.7: DONTNEED, 3.0: REQUIRED to 2.6: DONTNEED, 2.7: DONTNEED, 3.0: DONE

  ruby_3.0 d6b8b37a2608a0fbb8bcdf10356bb25f9ebe1fe merged revision(s) e5dd40b1f3a11f48d566413ab347ce0cfff9a94960.